

# BUSINESS WEEK

YEAR  
AGO

WEEK  
AGO

START  
OF  
WAR  
1939

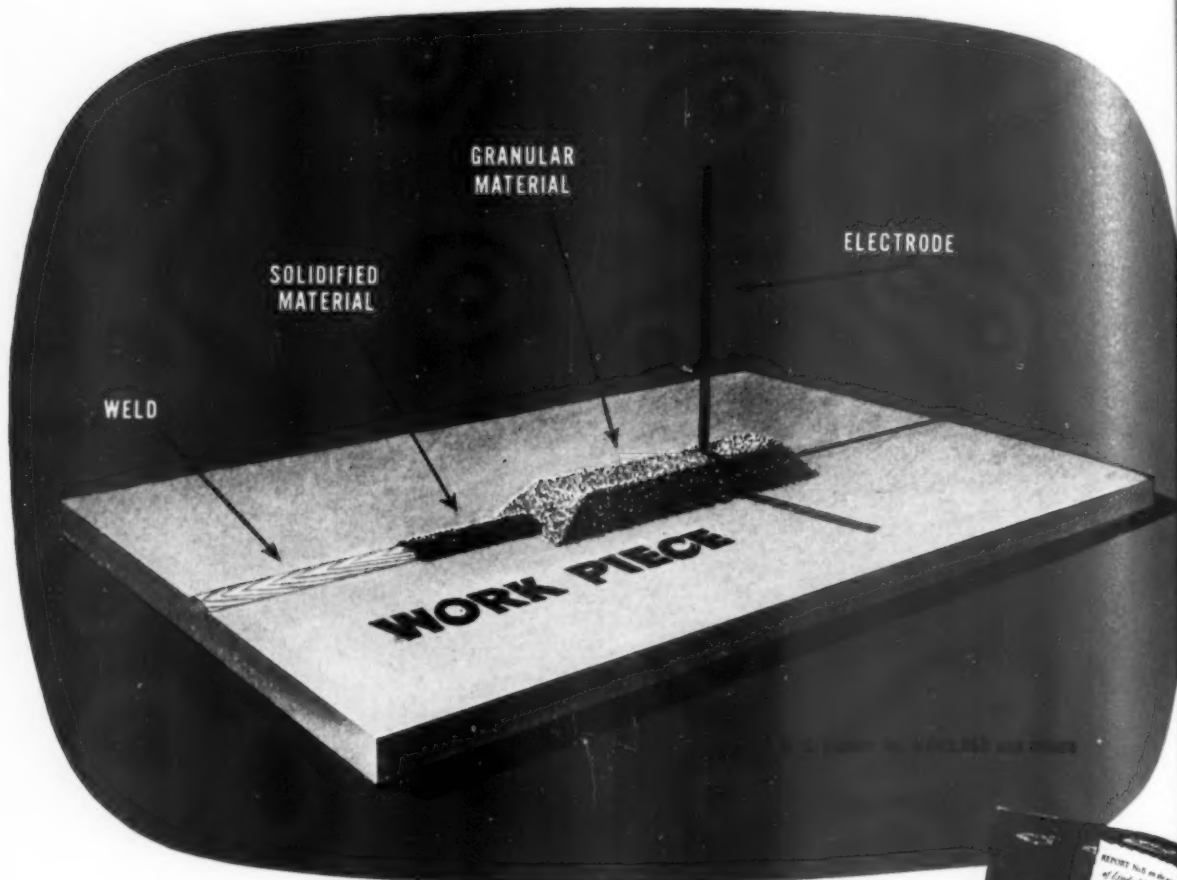


At the flash point, labor — everywhere — steps out to halt postwar plans that fail to take account of wage demands

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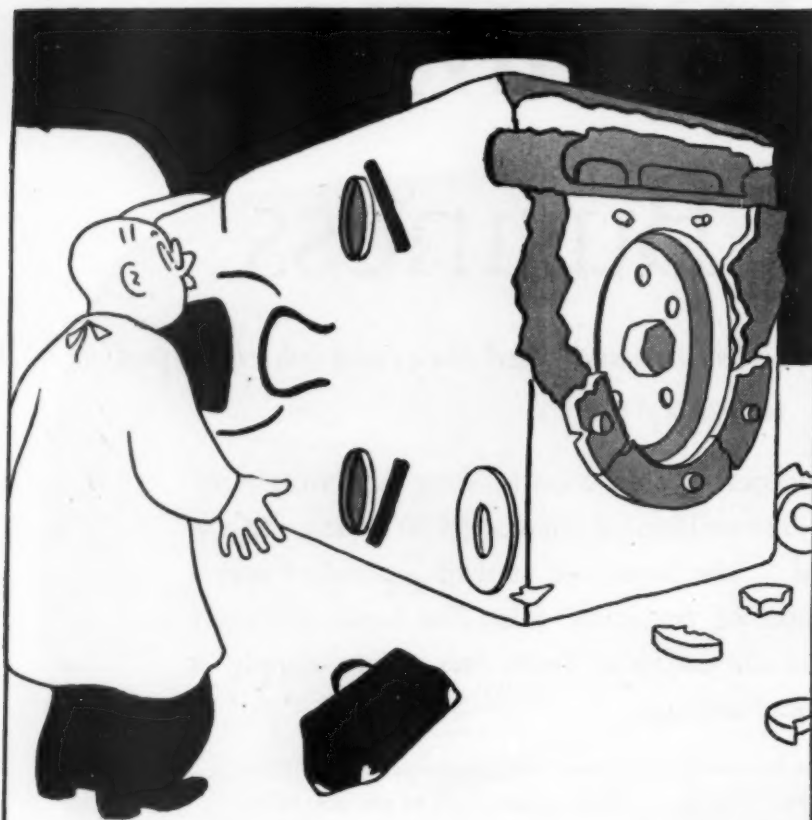
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BUSINESS WEEK • JUNE 30 • NUMBER 100

(with which is combined The Annalist and the Magazine of Business). Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw, Founder and Honorary Chairman. PUBLICATION OFFICE 99-129 NORTH BROADWAY, ALBANY 1, N. Y. EDITORIAL AND EXECUTIVE OFFICES, 330 W. 42ND ST., NEW YORK 18, N. Y. James H. McGraw, Jr., President; Curtis W. McGraw, Senior Vice-President and Treasurer; Howard Ehrlich, Vice-President (for business operations); John Abbink, Vice-President (for editorial operations); Joseph A. Gerardi, Secretary. About subscriptions address: J. E. Blackburn, Jr., Director of Circulation, Business Week, 330 West 42nd St., New York 18, N. Y. Allow ten days for change of address. Subscription rates—United States, Mexico and Central and South American countries \$5.00 a year, Canada \$6.00 for a year. Entered as second class matter December 4, 1936 at the Post Office at Albany, N. Y., under the Act of March 3, 1879. Return postage guaranteed. Printed in U.S.A. Copyright 1945 by the McGraw-Hill Publishing Company, Inc. Please indicate position and company connection on all subscription orders.

## PROBLEM OF STATE

San Francisco conference is With the expiration of the in- policy on his job as Secretary Edward R. Stettinius resigned accept the appointment as the States representative on the Se- Council of the United Nations. as soon as the United Nations has cleared the Senate, there nothing to stop the top-to-bot- reorganization of the State Dept., predicted since President Tru- took office, from getting under

## Work in Old Pigeonholes

The State Dept. now is hampered only by a sour personality setup but a badly engineered organization as well. Although the department's work will become 75% economic and 25% diplomatic, the economic part of the bill is crowded into the pigeonholes of the old diplomatic framework.

In the coming overhaul, some at- tempt will be made to straighten out the difficulty, but economics probably will continue subordinate to politics. That point was settled definitely in the reorganization last December.

Stettinius' team of assistant secreta- has proved something less than Rose- well material.

Joseph C. Grew, the under secretary, stands on very shaky ground. He is plagued with being swayed too easily, and he has let himself in for bitter criticism by preaching a policy that his call appeasement of Japan.

Nelson A. Rockefeller, assistant secre- for American republic affairs, will be the first to feel the ax. He gets the blame for the Argentine fiasco at San Francisco. President Roosevelt is said to have backed him because he liked to see a Rockefeller working for him. President Truman never warmed to him, and he blames him for the worst blunder of the new Administration. Another complaint against Rockefeller is that he wants to give Latin America everything asks for, regardless of the repercussions at home or in other foreign coun- tries.

James C. Dunn, assistant secretary for foreign affairs outside Latin Amer- ica, may be able to dodge the blow. He is an old line State Dept. man with a track for ingratiating himself. His strong anti-Russian attitude is a liability, but if former Secretary Cordell Hull has any influence left, it may save him. Julius C. Holmes, assistant secretary

for administration, has been tagged a reactionary but is doing a workmanlike job of renovating the foreign service, the key agency in our diplomacy. He may be retained in order to continue that work.

Archibald MacLeish, assistant secre- tary for public and cultural relations, is the State Dept.'s "ambassador to the U. S." Once Roosevelt's poet laureate, he now has the job of giving the com- mon man a peek at diplomacy. His tenure depends on how well Truman thinks he has succeeded.

William L. Clayton, assistant secre- tary for economic affairs, is regarded as the ablest man in the department's present lineup. He came in on an economic assignment with the distinct understanding that economists would be junior to diplomacy. He will stick by this bargain, but any reorganization is likely to accent business as distinct from diplomatic affairs.

Dean Acheson, assistant secretary for congressional relations and interna- tional conferences, is the only holdover from the Hull days. He has wanted to quit, but both Roosevelt and Tru- man have kept him so they could make use of his cordial relations with Con- gress.

## WALLACE'S SOWING TIME

Henry Wallace's cautious approach to the job of resuscitating the Com- merce Dept. shouldn't be taken as in- dicating any lack of determination to increase the department's stature. Wal- lace is moving slowly while he gets his bearings, but he is dreaming no small dreams.

A clew to the role he hopes to see the department play may be found in his appointment of Philip M. Hauser, a government career man now assistant director of the Census Bureau, to head up the job of planning its reorganiza- tion. Hauser has always seen the de- partment's primary functions as a serv- ice agency for business.

Wallace's biggest problem may be to deal with the advice and recommenda- tions now pouring in from well-wishers who were associated with him in his long years of service to the left of Roosevelt's center. For example, pro- fessional consumer groups are telling Wallace that the Commerce Dept. is the ideal place for the type of con- sumer service or advisory body they have long wanted to see in the gov- ernment.

## Whose Field Is Foreign Trade?

Don't be surprised if Wallace, despite his friendship for William L. Clayton, makes a bid for Commerce Dept. leadership in the foreign trade field.

Important business leaders are in- sisting that, even after the pending reorganization, the State Dept. will always be too much bound up in tra- dition and diplomatic restraints to pro- vide the initiative that will be needed to deal effectively with such competi- tion as the Russian foreign trade monopoly and the government-backed drives of the British.

## TRUMAN PLAN SNAGGED

President Truman's plan for shifting the succession to the Presidency to the Speaker of the House (instead of the Secretary of State), in the absence of a Vice-President, is running into snags that may delay it indefinitely, perhaps kill it altogether.

House passage is certain. Demo- crats will follow Truman's proposal, which would make Speaker Sam Ray- burn heir apparent. Republicans cer- tainly won't vote down a proposition that would put the minority leader, Joseph W. Martin, in line, should the Republicans capture control of the House next year.

In the Senate, the measure appears almost certain to be scuttled. Demo- cratic senators, many of them close friends of Truman, privately express doubt as to the constitutionality of the proposal. The constitutional argument that the Speaker, as a member of the House, is not a federal officer but a representative of an individual state, really is a mask for some jealousy by the senators, and a fear by Democratic leaders that enactment of the measure could pave the way for a Republican President without a national election.

## Wide Interest Aroused

Some opposition stems from old friends of James F. Byrnes, for they believe the President will name him Secretary of State next week. They feel that Byrnes is the logical candidate for the post.

Truman's proposal has stirred wide interest in the situation, which even opponents feel should eventually be corrected. They argue, though, that it should be done by a constitutional amendment so there could be no pos-



## *Why should his worries be yours?*

Each year your employees move closer to the twilight of their working lives. Subconsciously, men of forty-five and fifty begin to check off the remaining years, years that seem to slip by at constantly accelerating speed. And, always, there is the dread question: "Will there be enough to make life worth while?"—a question which often causes the hands and mind to neglect the immediate task.

And so an employee's worries *are* your worries.

This is one of the reasons that a pension plan pays. Employees feel a little more secure, do a little better work. It is a little easier to keep good men, a little easier to attract the men you want to have working for you.

Right now conditions are exceptionally favorable to the installation of pension and retirement plans. If you are considering anything of the kind, we will be glad to give you in detail the story of the plans offered by John Hancock.

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Chairman of the Board

PAUL F. CLARK  
President

...ity of court action, which con-  
...ably could throw the nation into  
...political stew in a critical period.

## PRICE-WAGE EXTENSION

Principal fact emerging from the ex-  
...ion of the price-wage law by Con-  
... this week is that OPA will con-  
... to control prices for another year  
... powers which—after a fine show  
... political pyrotechnics—Congress has  
... virtually intact.

The Andresen amendment, giving  
... Food Administration greater au-  
... over food pricing, is not in its  
... weakened version a formidable  
... challenge to OPA's authority. The old  
... provided that OPA and WFA  
... could act jointly in setting food  
... prices. The new law provides that both  
... OPA and the Office of Economic Stabil-  
... must have the "written con-  
... of the Secretary of Agriculture  
... fixing a ceiling. It was clear some  
... ago that that in appointing Clin-  
... P. Anderson to head up agriculture  
... WFA, President Truman was giv-  
... him a broad grant of authority  
... which would somewhat diminish the  
... of both OPA and OES (page 32).  
... House and Senate conferees had lit-  
... trouble in agreeing on the Barkley  
... eat-pricing amendment, which re-  
... that beef, pork, and other types  
... meat be considered separately in  
... price ceilings, and on the Pat-  
... amendment, which would give  
... Anderson authority to permit nonfed-  
... ally inspected slaughterers to ship  
... meat across state lines. They agreed  
... junk the Dirksen amendment, which  
... would have thrown all OPA regulations  
... to review in the federal courts,  
... and the Wherry amendment, which  
... would have put farm pricing on a cost-  
... basis.

## McKELLAR VS. LILIENTHAL

Sen. Kenneth D. McKellar of Tennes-  
... who has castigated Tennessee Val-  
... Authority Chairman David E. Lilien-  
... tal for half a dozen technical violations  
... of the TVA act, is preparing to fight  
... Lilienthal's proposed compliance with  
... statutory provision that has been ig-  
... nored to all intents and purposes for  
... years.

The 1933 law which set up TVA pro-  
... vided that headquarters should be at  
... Muscle Shoals, Ala. In the interest of  
... efficiency during the upper watershed  
... construction program, now complete,

operating headquarters have been main-  
... tained instead at Knoxville. The direc-  
... tors' meeting has been held each year  
... at Muscle Shoals to keep technically  
... within the law.

This week TVA announced that, as  
... soon as war conditions permitted, it  
... would move its general management  
... staff to Muscle Shoals. But its request  
... for construction funds for new office  
... buildings and other facilities will have to  
... go through McKellar, as acting head of  
... the Senate Appropriations Committee,  
... who is interested in keeping the sizable  
... TVA payroll in his home state, and who  
... can always be expected to oppose any  
... proposal made by Lilienthal just on  
... principle.

## 5-YEAR DEPRECIATION PLAN

The Bureau of Internal Revenue is  
... trying to take one uncertainty out of  
... the postwar tax picture by offering to  
... make five-year advance agreements on  
... the treatment of depreciation deduc-  
... tions. Under the new rule, a business-  
... man can file a depreciation plan with  
... his local internal revenue agent and  
... get assurance that the bureau will stick  
... by it for the next five years, unless he  
... decides to change it himself.

The offer probably won't mean much  
... to small businesses, in which deprecia-  
... tion isn't an important element of cost,  
... but will be a help to the larger com-  
... panies with high fixed costs.

## TERMINATION THREAT

Contract termination officials have  
... their fingers crossed on their new regu-  
... lation allowing direct government pay-  
... ments to subcontractors when the prime  
... contractor is threatened with insolvency  
... (BW—Jun. 9 '45, p26).

The plan may run along smoothly, or  
... it may touch off an explosion—in Con-  
... gress and elsewhere—from other credi-  
... tors of the primary contractors and their  
... lawyers who naturally will object to  
... taking a junior position.

## FAG END—WHO PAYS?

"Momentum costs" is a term coined  
... by the aircraft companies for the sizable  
... expenses involved in bringing the jug-  
... gernaut of plant production to a stop  
... after contracts run out. It covers every-  
... thing from paying the girls who put  
... severance notices in the last pay en-  
... velopes to junking the picture books and

educational blocks in the company-run  
... nursery school.

Altogether, such costs add up to a  
... pretty penny which, the aircraft com-  
... panies argue, the government should  
... pay. Contract termination officials say  
... that they aren't responsible, but they  
... may express "sympathy" if the compa-  
... nies ask Congress for relief.

## MUNITIONS RESEARCH

The Navy, and the Army to a lesser  
... extent, are placing "task contracts" for  
... postwar development work in mun-  
... itions. A standard form has been de-  
... vised to reduce the amount of negotia-  
... tions necessary in getting individual  
... projects under way.

Meanwhile, the Budget Bureau has  
... blocked plans to set up a military re-  
... search board under the National Acad-  
... emy of Sciences to serve until Congress  
... establishes a permanent postwar orga-  
... nization to take the place of the Office  
... of Scientific Research & Development.  
... OSRD's work is confined to new types  
... of munitions that can be put to use in  
... this war.

The Budget Bureau's objection to the  
... interim arrangement is its lack of con-  
... trol over National Academy funds.

A bill to establish a permanent post-  
... war research program has passed the  
... House. It would provide \$8,000,000  
... annually to a research board for na-  
... tional security, consisting of Army,  
... Navy, as well as other government offi-  
... cials.

## AIR POLICY SHAPING UP

It's practically certain now that the  
... Civil Aeronautics Board will award the  
... coveted North Atlantic air routes to  
... Pan American, American Export (Amer-  
... ican Airlines), and Transcontinental &  
... Western Air. Unless President Tru-  
... man's patience snaps, it may be fall  
... before they are certificated. For the  
... sake of cordial relations with Congress,  
... Truman, who has informally approved  
... the CAB plan, has been waiting upon  
... Congress for a declaration of policy on  
... American flag operations.

Legislation is tied up in the Senate  
... Commerce Committee on the question  
... of monopoly versus competition.

Pending in the committee is Sen. Pat  
... McCarran's bill to prohibit domestic  
... airlines from flying abroad and to bar  
... American international lines from fly-  
... ing inside the country. McCarran's bill  
... is regarded in some quarters as an at-

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tempt to freeze international business in the hands of Pan American. McCarran introduced this bill after the committee rejected his measure for the creation of an all-American community company to handle overseas air traffic.

With McCarran vacationing in Nevada, there's no chance that his bill will reach a vote in the Senate before the San Francisco security charter gets the right-of-way, after which the Senate will go vacationing.

## RADIO SETS: SOONER, LATER

Radio manufacturers are not entirely happy about the inclusion of L-265 (which governs the manufacture of radio receivers) in the revision of PR-25, the spot authorization order. This means that some companies will be able to go ahead with civilian production while others will be tied up on war orders. It's the old "even start" problem.

WPB's Office of Civilian Requirements wants to hold up production of new radios until there are enough tubes—a principal bottleneck—for all replacement needs, with a surplus for new production.

Chances are that there will be some production of new sets before the first of the year.

## CAPITAL GAINS (AND LOSSES)

Planning for removal of remaining production controls after V-J Day is going along quietly, but WPB probably won't say any more about it for a couple of months.

The Army Exchange Service has ordered that all contracts with concessionaires and purchase orders include an antidiscrimination employment clause. (A general order to this effect was issued by the War Dept. July 15, 1941.)

Fred M. Vinson, now director of War Mobilization & Reconversion, still is regarded as a better than even bet to succeed Henry Morgenthau, Jr., as Secretary of the Treasury.

Tom C. Clark becomes Attorney General with the blessing of Thurman Arnold, his former boss in the Justice Dept. Antitrust Division. Clark was sworn in this week by Judge Arnold instead of by the traditional Supreme Court justice.

—Business Week's  
Washington Bureau

## THE COVER

Kindled principally by the hot coals of unsatisfied wage demands, strikes raged this week throughout the nation (page 100) as labor girds for a real fight to maintain its wartime gains.

DIFFICULTIES OF DOING BUSINESS  
AT A DISTANCE . . .



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Overworked Long Distance lines urge a time limit on calls these busy war days. But suppose a 5-minute call—or a series of them—is not enough?

If you are faced with a sudden business problem in one of New York's up-state markets, then an officer of a Marine Midland bank may be able to help you at a short distance. These executives are located in 40 New York Communities throughout the state. They know local business and local people. Perhaps they can supply information you need . . . help you with their firsthand knowledge. We suggest you check with them for help in ironing out some of the difficulties of doing business at a distance today.



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# THE OUTLOOK

BUSINESS WEEK

APRIL 30, 1945



**Look for the government to swap a revision of the Little Steel formula for a new promise from organized labor to abide by the no-strike pledge.**

That's what this outbreak of wildcat strikes is leading up to.

Union chieftains (unless they are willing to take responsibility for throwing over the no-strike pledge) will have to seek such a deal; if they don't go to bat, they will be unseated by a rank and file that's already out of hand.

The Administration will have to give in or see the National War Labor Board and its wartime controls swept into the discard, despite the frantic efforts of the conciliation agency.

Little Steel probably is due for a refurbishing—on White House orders—by Labor Day in any event. But it now seems doubtful that union leaders can sit on the powder keg within their own movement until September.

Strikes so far hold only a veiled threat to union leadership—and they aren't yet crucial to reconversion and civilian production.

At midweek, fewer than 100,000 workers were out. That is less than 1% of factory employment (even though the cumulative effect on unstruck plants might influence 2% or even 3% of total manufacturing output).

If the total were to rise to, say, a quarter million or 2% of factory workers, perhaps 7% or 8% of manufacturing would be affected—mostly in the field of civilian reconversion. That would begin to be pretty serious.

**And if the number of strikers should get up around 250,000 and stay there, union officials will be forced to act—and quickly.**

**Retail trade has been pushing up hard this month in a rebound from the 20% post-Easter slump.**

Victory in Europe doesn't seem to have changed consumers' spending habits much despite fears of a depressing effect. Demand still is high.

**Small supply looks like the main limit on trade to the year end.**

Cuts in war output have started, but they haven't been very painful to most people. Not many displaced munitions workers have had any trouble in finding other jobs (chart, page 104).

**Hence it seems that not many consumers are very much worried.**

Moreover, desired foods and fabrics are about as hard as ever to find; we haven't the goods to damp down demand and won't have for some time.

Momentarily, as V-E Day came into sight and passed into history, it seemed that retail turnover might have slackened.

There was a decline in department store sales (adjusted for seasonal variation) in the weeks immediately before and after the surrender of the Nazis. Several factors probably were at work to retard buying:

- (1) Discussion of munitions cuts vied for the daily headlines with predictions of unemployment and smaller pay checks.
- (2) The record buying spree at Easter had satisfied many needs.
- (3) Unseasonable cold checked buying for summer and for vacations.
- (4) Shelf stocks were depleted; quality wasn't always up to snuff.

**Now, however, experience is driving home public realization that more and better merchandise will be relatively slow in appearing. Apparently**

# THE OUTLOOK (Continued)

**BUSINESS WEEK**

**JUNE 30, 1945**

there is less tendency to put off buying than many observers had anticipated.

**Consumers' incomes have begun to recede (chart, page 20) and will continue downward. But the slide will be gradual unless the Japs quit suddenly.**

War output by Dec. 31 will be down about 30% from the March level, eliminating 3,000,000 jobs in munitions manufacture. However, most of these workers will get new jobs if at somewhat less pay.

The government's war expenditures, meanwhile, will by no means match the 30% drop in munitions. The net reduction in the armed forces by the year end will be no more than 3% to 4% so that pay and maintenance will remain high as will dependency allotments.

Then, too, there will be discharge pay for about a million veterans.

**Actually, consumer incomes in the final six months of this year probably won't be much changed from last year's very high level.**

Business Week's index of over-all activity (chart, page 13; box, page 17) has averaged a decline of about a point a week since V-E Day, dipping from around 231 at the beginning of May to below 223 at the end of June.

This trend directly reflects lower war output. It will continue—but gradually the decline will become much less rapid than that in munitions production because reconversion to consumer goods output will begin to take up the slack.

Rapidly as reconversion may get under way, there is little prospect of an increase in the aggregate amount of goods available to consumers in the last half of this year. A few pinches are being relieved even now—cigarettes, tires, gasoline—but the outlook isn't a happy one in many important items such as textiles, meat, and sugar.

**Thus, with spendable cash remaining plentiful and with consumers in a spending mood, price pressures will persist throughout 1945.**

**Efforts to improve textile supply are many, but it is doubtful that they will bear much fruit until next year when workers will be more plentiful.**

WPB is trying to provide new machines where bottlenecks can be broken in that way. Mills are getting higher manpower ratings, but these can't accomplish very much in the present tight labor market.

Further adjustment in basic hourly wages may attract some workers. And OPA is undertaking to reassure mill operators by permitting adjustable prices so that higher wage costs may be passed on to customers.

Most immediate benefits are to be expected from reduced military takings. There probably will be a little improvement in the supply of women's suits and men's overcoats due to Army and Navy cuts on wools, but a stepup in worsteds isn't expected until 1946.

**Some improvement in supplies of consumers' hard goods is certain before the year end, even though these items won't bulk large in total expenditures.**

There undoubtedly will be more hardware. For example, radio replacement tubes will become more plentiful. Westinghouse indicated this week that it could be turning out sets in 60 to 90 days after the go-ahead.

Lead allocations for automotive batteries have been increased 20% for the third quarter.

# FIGURES OF THE WEEK

THE INDEX (see chart below) . . . . .

\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
*222.6	†223.6	#227.3	231.2	235.1

## PRODUCTION

Steel Ingot Operations (% of capacity).....	91.5	88.8	91.0	91.2	95.7
Production of Automobiles and Trucks.....	19,490	19,600	21,010	21,100	19,385
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$7,942	\$7,195	\$5,654	\$4,055	\$5,608
Electric Power Output (million kilowatt-hours).....	4,358	4,348	4,330	4,617	4,325
Crude Oil (daily average, 1,000 bbls.).....	4,898	4,888	4,867	4,729	4,583
Bituminous Coal (daily average, 1,000 tons).....	1,975	†2,012	1,893	1,707	2,029

## TRADE

Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	83	85	86	80	82
All Other Carloadings (daily average, 1,000 cars).....	62	63	59	45	64
Money in Circulation (Wednesday series, millions).....	\$26,536	\$26,533	\$26,399	\$25,280	\$22,293
Department Store Sales (change from same week of preceding year).....	+19%	+14%	+1%	+17%	+3%
Business Failures (Dun & Bradstreet, number).....	17	13	12	15	25

## PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931=100).....	256.9	257.5	257.3	253.7	249.6
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	166.5	166.3	166.3	166.3	165.7
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	227.9	228.3	228.5	223.3	223.7
Finished Steel Composite (Steel, ton).....	\$58.27	\$58.27	\$58.27	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton).....	\$19.17	\$19.00	\$18.92	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.).....	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (Kansas City, bu.).....	\$1.70	\$1.69	\$1.66	\$1.63	\$1.55
Sugar (raw, delivered New York, lb.).....	3.75¢	3.75¢	3.75¢	3.75¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	22.62¢	22.71¢	22.73¢	21.60¢	21.72¢
Wool Tops (New York, lb.).....	\$1.330	\$1.330	\$1.330	\$1.340	\$1.340
Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢

## FINANCE

90 Stocks, Price Index (Standard & Poor's Corp.).....	121.6	120.0	118.3	103.8	102.8
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.28%	3.29%	3.31%	3.48%	3.58%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.61%	2.61%	2.62%	2.70%	2.73%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	½%	½%	½%	½%	½%

## BANKING (Millions of dollars)

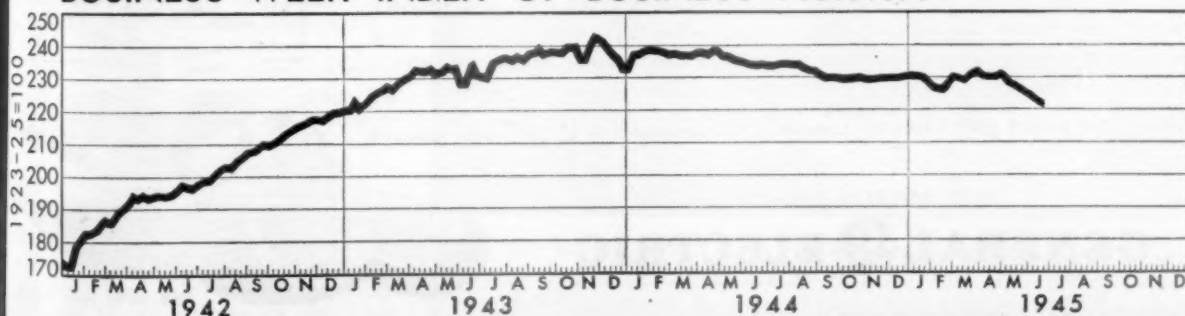
Demand Deposits Adjusted, reporting member banks.....	37,176	41,189	40,516	35,104	36,426
Total Loans and Investments, reporting member banks.....	63,005	58,896	57,482	59,881	51,152
Commercial and Agricultural Loans, reporting member banks.....	5,896	5,856	5,790	6,494	5,939
Securities Loans, reporting member banks.....	5,054	3,694	3,221	4,173	2,031
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks..	46,334	43,676	42,897	43,786	37,832
Other Securities Held, reporting member banks.....	3,125	3,096	3,039	2,950	2,904
Excess Reserves, all member banks (Wednesday series).....	1,400	1,380	900	1,277	1,213
Total Federal Reserve Credit Outstanding (Wednesday series).....	22,287	22,347	21,980	20,113	15,786

\* Preliminary, week ended June 23rd. † Revised. ‡ Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.

¶ Index figures for 1945 have been revised; revisions appear on page 17.

## BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



# The bulb that got brighter as the price went down!



**E**VERYBODY loves a bargain! And when you stop to think about it, the 60-watt General Electric lamp is one of the biggest bargains of modern times.

Since 1907 the price has gone down from \$1.75 to a dime! Yet the amount of light has gone steadily up. Just to show you how research works for you, let's compare today's 60-watt G-E bulb with that of 1923.

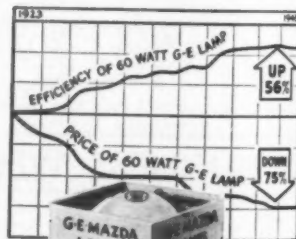
The price in 1923 was 40 cents. Today it is only a dime (plus tax). Yet this 10 cent lamp gives over 50 per cent more light for the same amount of electricity.

Whenever you need a light bulb, or a fluorescent lamp... remember that the initials G-E are symbols of a research organization whose constant aim is to give the public more and more light at lower and lower cost.

**"TO MAKE G-E LAMPS STAY BRIGHTER LONGER"** The Constant Aim of G-E Lamp Research

G-E MAZDA LAMPS  
**GENERAL ELECTRIC**

Hear the G-E radio programs: "The G-E All-Girl Orchestra," Sunday 10:00 p. m. EWT, NBC; "The World Today" news, Monday through Friday 6:45 p. m. EWT, CBS; "The G-E Houseparty," Monday through Friday 4:00 p. m. EWT, CBS.



BUY MORE WAR BONDS

## Congress Tackles Labor Policy

Carefully designed measure to settle disputes through compulsory arbitration faces almost certain defeat, but it will focus congressional attention on need for workable legislation.

Senators Joseph H. Ball, Harold H. Burton, and Carl A. Hatch have just submitted to Congress a bill which would overhaul the Wagner act and establish a new national labor policy. Its introduction at this time is the result of the completion of a study of the problem which was begun in the autumn of 1942.

But the important fact about its being put on the desk of the Senate Education & Labor Committee is that now, as strikes are flaring all over the labor front (page 100), Congress has in the hopper a carefully drafted measure designed to settle industrial disputes by a government-regulated mediation and arbitration process instead of by work stoppages.

• **Unlikely to Pass**—The most ambitious attempt yet made to extend government control over labor relations by legislation, the Ball-Burton-Hatch industrial relations bill—which has only the slimmest chance of passage—will certainly be followed by many other efforts to write strike curbs into statutes. The breaking up of the tenuous peace that has prevailed in labor relations during the war will initiate a trend toward legislation that will end only when the industrial front returns to a relative calm or when new labor laws have been enacted.

The almost-sure defeat in store for the BBH bill will derive from the drastic proposals it contains (page 16).

• **Compulsory Arbitration**—In narrowing the coverage of the Wagner act to include only employees directly engaged in interstate commerce and exclude those in establishments with less than 20 workers, the bill goes counter-trend in the sense that it represents a withdrawal of federal interest.

In outlawing union membership as a condition of employment unless the union represents 75% of the employees and the arrangement is ratified by 60% of the workers who will be covered, the bill seeks to make a statistical compromise between the principle of simple majority rule and public distaste for the closed shop. This provision has already brought the bill the solid opposition of all sections of the labor movement.

And in providing for compulsory ar-

bitration, a feature which has considerable popular appeal, the bill draws the hostility of organized management, which considers compulsory arbitration a serious invasion of freedom and which has good reason for believing that it leads to compulsory union membership.

• **Might Be Stamped**—The only chance that the BBH bill has of passage is that Congress, stamped by a wave of strikes breaking out and threatening to engulf the economy, will be of a mind to try anything, no matter how drastic. Even on such action, however, there is a powerful deterrent. It was in precisely that mood, engendered by the coal strike, that Congress passed, over a presidential veto, the Connally-Smith War Labor Disputes Act which has, on the record, provided license for more labor trouble than it has eliminated.

But whatever happens to the BBH

bill, it will inevitably stimulate widespread discussion of what is a proper legislative approach to labor problems, and it will focus the attention of Congress on incongruities in the present federal labor policy. A new law is in the cards, but it is naive to assume that it will be written, as the BBH proposal was, by a group calling itself above the conflicting interests involved in labor problems.

• **Sponsored by Committee**—Senators Ball, Burton, and Hatch had their measure written for them by a self-organized committee financed by Samuel Fels, the 85-year-old, retired Philadelphia soap manufacturer. The committee's chairman and most active member was Donald Richberg, formerly general counsel for the NRA and a coauthor of the Railway Labor Act. The Richberg committee made a special point, in seeking sponsors, of excluding representatives "of groups of special interest."

In introducing the bill, Hatch stated that "there is not a single provision, not even a word, which has been written in at the suggestion of any partisan of management or labor." A proposal which is the product of such disassociations may win an amorphous public support, but basic political decisions are



The Senate team of (left to right) Harold Burton, Carl Hatch, and Joseph Ball mull over another peace measure. With Sen. Lister Hill they sponsored the famous B2H2 resolution for a world peace organization—to be known as the United Nations—equipped with a police force to keep the peace. This time it's a bill to revamp labor laws to keep peace on the homefront during reconversion.

more and more being made as the result of pressures applied by directly concerned groups.

• **Bitter Fights Ahead**—Thus it is more realistic to expect that whatever is ultimately drawn up for a new federal labor policy will be some bargain struck between the clashing interests of labor and management, with the influence of unorganized public opinion limited to deciding who gets the edge.

Meanwhile, before a broad new national labor policy is written into law, there will be bitter legislative fights over marginal issues. The question of whether unions of supervisors should have the protection of the Wagner act is headed for congressional determina-

tion. So also is the postwar fate of a system of federal regulation as is currently administered by the National War Labor Board. And in proposals providing for the reorganization of the Dept. of Labor, which will shortly be before Congress, the question of what part the government will play in the labor picture is up for consideration.

• **States Experimenting**—And in the same period, while the slow-moving Congress makes up its mind on how this key domestic problem should be dealt with, the various states will continue their experiments in enacting measures designed to minimize labor strife and curb union power (BW—Mar.24'45,p102).

## BBH Formula a Panacea for Labor Strife

The Ball-Burton-Hatch bill proposes "to protect interstate and foreign commerce by providing for the prompt, peaceful, and just settlement of labor relations controversies between employers and employees, to establish the rights and obligations of the parties thereto, to amend the National Labor Relations Act," and to achieve "other purposes."

• **Disputes Classified**—Among its salient points is division of labor disputes into four classes: (1) those controversies over the rights of employee representation; (2) those arising from the making or maintaining of an agreement concerned with wages, hours, or conditions of employment; (3) those developing from grievances against an employer and involving the application of the terms of an agreement; and (4) all others engendered by issues not covered in the foregoing categories.

The bill would create a Federal Labor Relations Board to handle disputes. This board would process Class 1 controversies much like the National Labor Relations Board now does under the Wagner act—by investigating membership claims, conducting polls where necessary, and certifying the majority-choice organization as legal collective bargaining agent.

• **Weight of Public Opinion**—Class 2 controversies would be guided by FLRB through original two-party negotiation and then, as the dispute survived each stage of treatment, through mediation—in which an effort would be made by an outsider to bring the parties to voluntary agreement; through fact-finding—in which a panel would determine and publi-

cize the facts in dispute, hopeful that the weight of public opinion would effect a settlement; and, finally, if necessary, through arbitration—in which awards in cases vital to the public interest would be made binding on the parties.

Class 3 controversies would be submitted to a bipartisan board or an FLRB-appointed referee. And the catch-all Class 4 types of controversies would be handled like those in Class 2.

• **Union Responsibility, Too**—The bill redefines unfair labor policies to include union as well as employer actions. A strike in violation of contract is an example of the BBH concept of what should be ruled out of bounds. All unfair labor practices are proscribed by the bill; it provides that policing be done by an agency—with no other responsibilities—to be called the Unfair Labor Practices Tribunal.

Withdrawal of representation rights from unions, civil action, and other standard devices are authorized to secure enforcement of tribunal rulings. The Norris-LaGuardia act would be suspended to permit federal courts to issue injunctions against unions in violation of the new law.

• **Equality in Membership**—The bill makes the closed shop legal only if certain prescribed conditions are met. These include limiting its availability to unions which admit all applicants for membership on equal terms and footing with existing members. Unions in a closed-shop relationship must also not deprive anyone of membership except on written charges and after a fair hearing.

## Post-Perkins

Schwellenbach, planning to use judicial principles, will seek centralization of agencies in a reorganized Labor Dept.

When U. S. District Judge Lewis B. Schwellenbach replaces Frances Perkins as Secretary of Labor on July 1 (BW—Jun.2'45,p100), an experiment in labor administration "based on the same principles of justice as a court" will get under way in the Dept. of Labor building in Washington. Schwellenbach outlined his plans briefly last week in a farewell address at Yakima, Wash.

• **"Facts and the Law"**—He did not amplify this, beyond explaining that a court "hears the facts, checks up on the law, and then reaches a conclusion in harmony with the facts and the law."

Fundamentally, his plans call for complete overhauling of federal labor policy, and consolidation of scattered agencies handling labor matters into his department. Inevitably, this means he will have to go to Congress to achieve some parts of his plan. For instance he wants the independent National Labor Relations Board and the National War Labor Board brought under his administrative wing, although the two agencies would continue to operate as they now do.

• **Reorganization Program**—Shakeup plans (which eventually could lead to swelling of Labor Dept. personnel from the present 11,000 to some 40,000 through transfers) also call for incorporation of the U. S. Employment Service into the department; possible adoption of the Unemployment Compensation Commission; and annexation of such agencies and activities as the War Production Board's labor requirements division, the apprentice training program, and the plant training program. The latter steps virtually would doom the present War Manpower Commission.

Schwellenbach also has expressed an interest in taking into his revived department the labor functions of the Army, Navy, and other governmental procurement agencies. Tough opposition is expected, however, if this is attempted.

• **Not All at Once**—Changes are not expected to come all at once. Schwellenbach, by past record an able administrator, proposes to make them as they become feasible. Piecemeal legislation is probable instead of an omnibus bill reorganizing the department.

President Truman is backing his secretary in the broad revamping of the labor branch.

## Needed: A Policy

Government must decide disposition of Axis assets in country. Meanwhile, the U.S. is tightening its grip.

The end of the war in Europe brings the U.S. rather suddenly up against the question of what it is going to do with Axis property it has seized in this country. As long as we were at war with Germany, the government could take over the assets of German nationals on a custodianship basis.

Now the government—specifically Congress—must set a policy for disposition of the assets the custodian holds. A strongly supported proposal is that Axis assets should be used to indemnify American owners of damaged properties in Axis countries and possibly Axis-occupied countries, such as France and the Philippines.

**Different Tune This Time**—After the war, German property holders ultimately got back about 10¢ on the dollar, the rest being tied up in offsets against American claims. Unless Congress changes its temper within the next

couple of years, this isn't likely to happen again, particularly since U. S. claims bulk so much larger this time.

Nobody knows just what should be done, though. International law is badly muddled on this point, but it provides little support for confiscating the property of private individuals and using the proceeds to indemnify nationals of the victor. On the other hand, it can be argued that Germany's private individuals provided very little support for international law.

• **Tightening Up**—Regardless of ultimate policy, the first official reaction to the changed status of our custodianship seems to be to tighten our grip on Axis assets in the U.S. On orders from President Truman, Alien Property Custodian James E. Markham is taking over all the cash and securities held by German and Japanese nationals. Previously, these accounts were frozen under Treasury supervision, but were not actually seized by the government.

German and Japanese frozen funds run about \$220,000,000. Added to the \$230,000,000 worth of other assets already taken over, this will bring the total to about \$450,000,000.

As an offset against U. S. property losses, the custodian's seizures may not go far. American investments in Axis

## Business Index Revised

Up-to-date statistics on munitions output, a component of Business Week's Index of Business Activity (BW-Nov. 1'41, p14), have just become available. To incorporate these revisions, the index has been recomputed back to the beginning of 1945. The revised figures (1923-1925=100):

Week Ended	Week Ended
Jan. 6... 231.5	Mar. 31... 233.0
13... 231.3	Apr. 7... 231.5
20... 230.9	14... 231.4
27... 229.4	21... 231.2
Feb. 3... 227.7	28... 232.2
10... 227.5	May 5... 231.4
17... 229.5	12... 229.0
24... 231.3	19... 228.3
Mar. 3... 231.0	26... 227.3
10... 230.1	June 2... 226.2
17... 231.5	9... 225.2
24... 232.7	16... 223.6

countries alone ran to about \$1,775,000,000 at the start of the war. No final estimate of property damage can be made yet, but it seems likely that the total will exceed that amount.

• **Multimillion Control**—From an operating standpoint, the properties held by



## TOLEDO CHARTS ITS HOPES

Toledo, admitting its faults of yesterday, unveiled this week its vision for tomorrow—a master plan for reconstruction conceived after two and a half years of study. Salient features are embodied in a \$250,000 61-ft. model. A typical section transforms Toledo's present congested downtown area (left) into a spacious section (right) made readily accessible by superhighway patterns, having "roadless" communities, and low structures in the business segment to circumvent crowd congestion. Geared to immediate postwar demands, the plan features a terminal at the city's heart for air, rail, and bus traffic, consolidated

freight and marshaling yards, a system of highways—some underground—to eliminate motor traffic congestion. The Toledo Tomorrow Committee, a group representing government, education, and business, brushes off real estate ramifications inherent in such a scheme. It admits widespread demolition will be required but reports that "millions of dollars worth of municipal and private improvements had been scheduled for the postwar period before we worked out the idea." The model was brought to completion by Norman Bel Geddes, industrial designer, in collaboration with Maj. Alexander P. de Seversky, aircraft engineer, Earle Andrews, highway authority, and the late Col. Henry M. Waite, railroad consultant.

## Protests Prevent Release of German Films

The Office of Alien Property Custodian let it be known late last week that it had changed its mind—it would not issue licenses for the exhibition of 50 German and Austrian motion pictures.

This about-face was hailed with victory cries in two widely separated camps, a Hollywood bloc in Congress and the editorial office of the Communists' Daily Worker. From these two focal points of protest, a barrage had issued for some days.

• **Seized at War's Outbreak**—The films in dispute were among those seized by the APC when the United States declared war on Germany. Since the APC may not legally destroy alien property, and since storage and insurance costs keep piling up, it was proposed to earn money by leasing the films to distributors. Bids were invited, to be opened July 6. APC was to get a minimum of \$100 a showing for feature films and \$50 for shorts.

Among the offerings were such titles as "Congress Dances," "Intermezzo," "Gypsy Baron," and "St. John's Fire." Some of the features have English dialog.

The Daily Worker promptly began an editorial crusade. Much was made of the fact that a cut in the budget of the Office of Censorship

caused that agency to shut down its New York board of film review on June 14. Although it was made clear that personnel from Washington would censor the films, and that no film would be released without censorship, the fight against "the Nazi propaganda menace" continued.

Others who began to take an interest in the German films included Congress' Hollywood star Helen Gahagan Douglas (D., Calif.), Rep. Ellis Patterson (D., Calif.), and Rep. Emanuel Celler (D., N.Y.). They agreed that German films would not be a good thing, either for Hollywood or for the rest of the country.

Rep. Celler happens to be a member of the House Appropriations Committee. Reportedly, the APC's office reached a studied decision to reverse itself when Celler called it on the phone and told it what to do.

• **From the Floor, Even—Rep. Douglas** had threatened to denounce APC from the floor of the House.

In announcing that the invitation for bids on the film had been withdrawn, Francis J. McNamara, deputy alien property custodian, reiterated that under the terms of the proposed license, no film would have been released without "prior approval of an appropriate governmental agency."

the custodian represent a full-size job. Counting all the assets of the business enterprises it has taken over, it controls directly or indirectly about \$484,000,000 worth of property, in addition to the frozen funds. (Example of indirect control: If the custodian seizes 50% ownership of a corporation, he controls all its assets, not just half.)

The list of vested property includes about 400 businesses, which produce a bewildering variety of problems. At one time, the government took over a Japanese firm making Chinese food and found itself in the chow mein and chop suey business. It made quite a splash in the world of fine art when it liquidated the stocks of a big Japanese importing house (Yamanaka) with show rooms on Fifth Ave., New York City (BW—Apr. 1'44, p100).

• **Moving Slowly**—Theoretically, the custodian's policy is to sell or liquidate and reduce all assets to cash. In practice, disposal of business enterprises has moved slowly. Title claims asserting erroneous vesting often have made it impossible for the custodian to offer

property for sale. Even where the title is clear, difficulties of finding a buyer and getting the company's affairs in order have delayed the process. The German habit of milking subsidiaries for all they are worth left many of the properties so wobbly that no buyer wanted to take over.

Altogether the custodian has put some 260 firms into liquidation, and has sold 13, all of them comparatively small fry. Returns on sales so far come to \$950,000.

• **Like a Stockholder**—The rest of the vested companies are running under the custodian's management. In most cases, the custodian acts like an ordinary stockholder, electing one or more directors and leaving the operation up to them. Where the old management was suspected of Axis sympathies, it has turned them out and installed a new set of officers.

Some of the custodian's properties cut a wide swath in American business. At the top of the list is General Aniline & Film Corp. (BW—Jul. 8'44, p54), formerly a subsidiary of I. G. Farben,

the German dye trust. Others include American Bosch Corp., which makes fuel injection equipment and magnets, American Potash & Chemical Co. (BW—Jul. 15'44, p64), and Schering Corp., a big manufacturer of drugs and serums. At the custodian's order, General Aniline sold its 50% interest in Winthrop Chemical Co. to Sterling Drug, Inc., for \$9,500,000 (BW—Mar. 31'45, p70).

• **Trouble With Patents**—Over the long pull, the custodian's holdings of patent and patent applications may become more important than the business enterprises he is operating. To date, the custodian's office has vested about 46,000 patents, applications, unpatented inventions, and patent contracts. About 33,000 of these were enemy-owned. The rest belongs to nationals of enemy-occupied countries.

Patents taken from Axis owners are offered to American business on a royalty-free, nonexclusive basis, provided no Americans already have rights against them. If an American firm held exclusive license under a German patent, the custodian ordinarily would license the patent to others, unless the licensee is willing to give up his rights in exchange for a royalty-free agreement. So far, about 1,500 licenses have been issued covering some 10,000 patents, mostly in the fields of chemicals and electrical machinery. Interest has been picking up since V-E Day, as manufacturers start looking around for good postwar bets.

• **Difficult to Return**—The custodian originally tried licensing the patents of enemy-occupied nationals on the same basis—royalty-free and nonexclusive. Protests from the governments-in-exile upset this plan, and the policy now is to license on a reasonable royalty basis. When and if the owners in liberated countries, as distinguished from enemy owners, get their patents back, the licenses will have to go with them, but so far there have been very few takers among American manufacturers.

As it turns out, giving patents back is a good deal more difficult than taking them over. The Alien Property Custodian operates under a patchwork law, most of it held over from the last war. As things stand, there is no provision in it for returning property to nationals of liberated areas.

• **Legislation Sought**—Another legal hitch arises out of the question of paying off claims of American creditors against the Axis property that has been seized. In the last war, the policy was to review the claims as they came in and pay them off on a first-come-first-served basis. This time, the custodian's office thinks it would be better to get

the claims in and make some sort of prorata distribution of the assets. Otherwise, there won't be enough to go around in many cases.

The custodian has been trying for almost two years to get legislation through Congress tidying up his legal problems, but the bill always has been sidetracked. As soon as Congress gets back from summer recess, the custodian's office will try to get action on the two most urgent points—return of patents and payment of claims.

## Genie for Homes

**Revolutionary system of furnishing heat and power for appliances by liquid heat is developed by researchers.**

The John B. Pierce Foundation, important housing research organization, will soon announce details of a revolutionary system for furnishing heat and power to homes. It is called liquid heat (BW-Apr. 21 '45, p. 80).

**Secret Chemical Used**—Basis of the development is a secret chemical, a liquid which will convey temperatures up to 817 F before boiling. This liquid is piped to different appliances in the home. It will operate them all from a single unit on the premises, according to the inventors, just as they are now operated from electric and gas connections.

It is claimed that liquid heat will run the cooking range, refrigerator, water heater, washing machine, lights, and all the other household gadgets at a fuel saving of 48% under conventional systems (on the basis of a test using No. 1 buckwheat anthracite costing \$7.50 a ton.) The liquid which does the multifarious jobs is heated in the first instance in a boiler burning coal, oil, or other fuels. Since it is independent of gas mains or power lines, liquid heat is adaptable to remote regions as well as settled communities.

**Implications Startling**—Implications are, to say the least, startling. Electric utilities are more than interested. One utility representative who examined the experiment and the specially designed equipment items that are involved remarked that "the electric companies wouldn't have to worry about it for a while anyhow." The trade magazine, Plumbing and Heating Business, official publication of the National Assn. of Master Plumbers, observes that liquid heat appears particularly important from the standpoint of present-day appliances.

It is generally admitted that if liquid

heat makes good on its promises, it is going to become a postwar development that will give certain established services and industries a run for their money. The huge cost of establishing a complete new system in houses already equipped—a cost that would not be offset for many years by fuel savings—minimizes the concern of the established heating industry.

• **Appliances, Too**—To complement liquid heat, Pierce Foundation has engineered an entire line of household appliances.

It is understood that the foundation, which controls all patents, will license manufacturers to make these items.

Great Lakes Steel Corp.'s Stran Steel Division (Detroit) is known to be interested in the possibility of manufacturing liquid heat units. Foundation officials say that other companies are being considered.

• **From Coal Tar and Silicon**—The inventor who has worked out the system has the unforgettable name of Orion O. Oakes.

Other engineers understand the principle of his fluid heat, but the chem-

ical composition of the medium remains the secret of the foundation. The inventor has identified the chemical as a tetracresyl silicate—which merely reveals that it is probably an organic salt derived from coal tar and silicon, a component of sand. Tetracresyl silicate is not in commercial production.

Success of the system would mean the realization of an engineering dream. In current practice the mechanized home is serviced by independent units. Refrigerator, room heater, water heater, cooking range, or what have you draws on its own source of heat or power. Perfectionists yearn for something comparable to the automobile whose wheels, heater, lights, cigar lighter, horn, etc., all get their power from a single engine. In theory liquid heat provides the answer.

• **No Pressure Problems**—No question of holding high pressure is involved in the utilization of liquid heat since its chemical will not boil under 817 F. (Water becomes steam at 212 F.) Ordinary cooking temperatures are around 400 F.

The chemical is put into a boiler and



## LOST PEOPLE HOMEWARD BOUND

Seized in 1941 when she wandered across the German border, a Swiss woman tells her story to a United Nations Relief & Rehabilitation Administration worker in Prussia. She is only one of 4,000,000 displaced persons seeking to be sent home from Germany, one of the major tasks of the peace—with UNRRA shouldering a large share of the responsibility. Registered, fed, clothed, and given needed medical attention, large numbers of wanderers are being persuaded to stay put in camps until rehabilitation of vital services and transportation gets well under way in their homelands. By the end of this month UNRRA will have sent to Europe nearly 250,000 tons of relief supplies.

## For Better Habitations

Liquid heat isn't the first development of the John B. Pierce Foundation to break into print. It has long been outstanding in research for better homes and home equipment. An early project was a prefab house, fully equipped, to sell for \$2,500 (BW-Apr.13 '40,p24).

The foundation was established by the late John B. Pierce, who headed the company which was the forerunner of the American Radiator & Standard Sanitary Corp. He dedicated the foundation as a nonprofit organization for "improving the habitations of men."

While officials protest that there is no connection between the foundation and American Radiator, there is a spiritual kinship. This gives an ironic turn to the fact that the general adoption of liquid heat might make radiators, as we now know them, obsolete. But presumably American Radiator would make some arrangement to manufacture liquid heat units under license.

heated there by conventional fuels. Of course this fire would have to be maintained through the summer for liquid heat, but that is now done in the case of furnaces used for hot water. Liquid heat has an especially tantalizing promise for communities with cheap natural gas.

• **But There Are Others**—Since there is no pressure involved, there is minimum danger of bursting pipes. But the intense heat poses other problems. Special solders and packing had to be developed to make joints and contacts secure. Also pipes must be insulated, 2 in. of Fiberglas proving the most effective way. There is no great danger from leaks, the chemical being reputedly non-poisonous. Since the liquid circulates and is re-used, the original charge is supposed to last a long time.

Among the many difficulties solved was the varying of temperatures to fit the requirements of different pieces of equipment. Thus the heat required by a toaster or flat iron differs from that needed by a mangle, a cookstove, or a room heater. The necessary variations were met by heat exchangers—such as air coils and water coils surrounded by the liquid heat which absorb and draw the heat down to desired temperatures.

• **Stoves and Refrigerators**—Here are some of the appliances that have

reached the advanced experimental stage:

A standardized cooking unit heated by coils of liquid heat. When not used as a cooker, the oven becomes a dishwasher. A sink and toaster are included.

A system of copper tubing through which liquid heat flows to various points of use, with return to boiler for reheating and recirculation.

Cylinder containing hot liquid submerged to furnish continuous water supply.

Refrigerator of the absorption type (like the Servel) operated by hot liquid coils.

Refrigerating system of the absorption type for cooling rooms in summer.

Jacketed compartment of finned coils of liquid for the passage of air to rooms.

Low pressure steam turbine connected to alternating current generator (to furnish electricity for lights, etc.).

Centrifugal pump (designed to work under high temperatures) for circulating liquid heat through system.

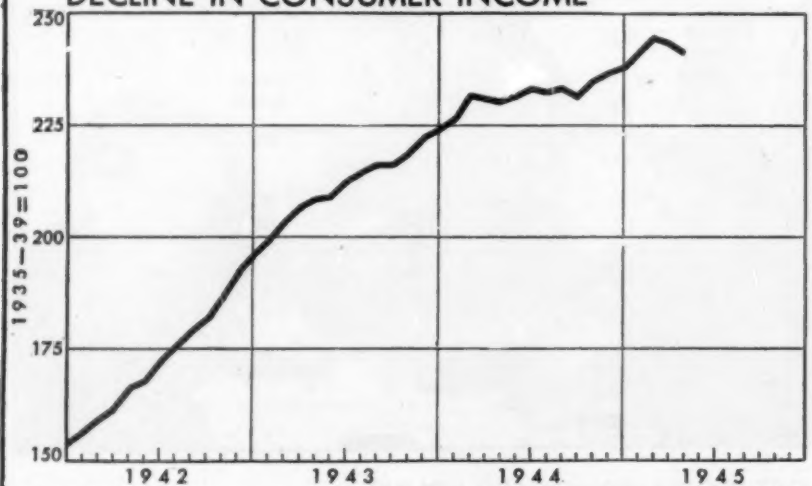
• **U. S. Had a Hand**—The National Housing Agency, through WPB's Office of Product Research & Development, signed an agreement with the Pierce Foundation. The government withdrew after a year's research led to the conclusion that the project could not contribute directly and immediately to the war effort. This decision by NHA and OPRD officials does not mean that they regard liquid heat as not worth further development work; quite the contrary.

• **Some Skeptics**—Engineers and chemists are sure to accept claims for liquid heat with their traditional skepticism. Inventor Oakes sounded a confident note last week. He felt sure that the basic principles of his system had been established though he did not doubt there were many problems still to overcome.

Heating with liquids other than water is not new. Molten salts, for instance, have solved many problems in the heat treatment of metals not only because such salts as borax and barium chloride (and even common table salt) can be brought up to temperatures above 1,800 degrees Fahrenheit, but because they have minimum effects on steel and alloys.

Mercury, which has been used more or less experimentally in at least two power plants in this country, would be employed more generally if its vapors were less poisonous to humankind. Since its boiling point (675 F) is far above that of water (212 F) and the pressure of its vapor at any temperature is considerably lower than steam, power plant engineers would like nothing better than to be able to use the higher efficiencies that go hand in hand with higher heat

## IN THE OUTLOOK: DECLINE IN CONSUMER INCOME



April was the start of a new trend in consumer income. For the first time, payrolls were responsible for the over-all drop. (In March, it was primarily a dip in farm income that was reflected.) Now, as cutbacks take effect, the drop in overtime, the shift to lower-paid jobs, and, finally, actual loss of work will enforce a continued decline. However, income is still running high. For one thing, payments to military personnel and dependents have been rising, and will continue to go up for several months. Also, pay raises will help cushion the decline. Hence, income won't fall as sharply as industrial activity, but will help sustain demand for consumer goods during reconversion (page 9).

## Trade Issues Astir

State Dept. prepares for international discussions on global commerce plans. Puts chief hope in world parley.

Elated last week by passage of the Doughton reciprocal trade bill, the State Dept. immediately began clearing the decks for a series of vital international negotiations, the outcome of which will determine whether U. S. plans for a freely expanding world trade can be translated into reality.

• **Seven Issues Pending**—At least seven complexly interrelated issues need to be tackled. Some will have to be thrashed out in secret conclave or open conference; others merely await congressional action.

They are (1) commercial policy; (2) cartels and intergovernmental commodity agreements; (3) oil; (4) shipping; (5) Bretton Woods; (6) repeal of the Johnson act and expansion of the Export-Import Bank; (7) settlement of war debts and lend-lease obligations.

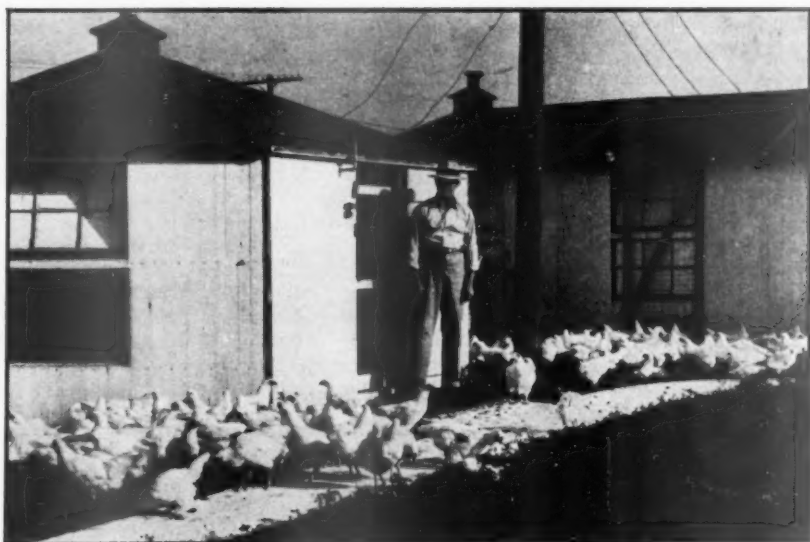
• **Parley Holds Chief Hope**—Chief hope of the State Dept. in the field of commercial policy lies in an international trade conference—now not expected before early 1946—which would adopt principles of freer trade based on equality of treatment among nations. Advantage of this method of opening the channels of world commerce is the speed with which a general world policy might be established.

Earlier expectations that it might be possible to get a multilateral reduction of tariffs have given place to the modest hope that a conference agreement might be reached binding all nations not to raise tariffs above their present level. This would do much to check the protectionist tendencies which have come to the fore in industrializing nations such as Brazil (BW—May 19'45,p114) and Argentina (BW—Jun.16'45,p113) and would provide a tariff ceiling under which the U. S. could effectively bargain with the revamped reciprocal trade program.

• **Quotas and Subsidies**—Just as vital would be agreement on these points:

(1) Elimination or relaxation of quantitative import quotas (like prewar British restrictions on certain agricultural imports) and export subsidies (like the U. S. subsidy on cotton exports), which can be even more restrictive than tariffs.

(2) Elimination or relaxation of preferential trade arrangements such as the Ottawa system in the British Empire.



## BURLINGTON'S DINING CAR FLOCK

Needing chickens for its dining car pots, Burlington Lines is out to beat the poultry shortage by raising its own fowl. On a leased ranch (above) in Lincoln, Neb., the road expects to produce upwards of 30,000 birds a year—fewer than one-third its requirements but enough to relieve a critical situation. The project is supervised by the railroad's agricultural department which is now stocking quantities of chicks to bring the ranch to planned production.

(3) Reduction of the discrimination against third countries which is sometimes involved in the Soviet Union's barter-like bilateral trade deals with free economies.

Here, in brief, is the lineup on other international economic issues in which developments are expected before the end of 1945:

• **Cartels**—Last week's acquittal of du Pont in an antitrust action may slow the government's drive against international cartels but the State Dept. is counting on the breakup of German cartels to weaken the whole cartel system.

It will conduct discussions with Britain, where strong segments in both industry and government are still cartel-minded, with the backing of the House Special Committee on Postwar Economic Policy & Planning. In a recent report on U. S. foreign economic policy this group (known as the Colmer committee) called for an international convention to forbid price-fixing, division of markets, or the allocation of export markets.

But on the related question of inter-governmental commodity agreements (to handle surpluses in primary industries like wheat, sugar, coffee, and cotton), the committee indirectly took exception to State Dept. policy. It gave approval only to temporary transitional arrangements, stating its belief that from the economic point of view

cartels and commodity agreements are horses of the same color.

• **Oil**—Still in process of revision is the U. S.-British oil agreement. One of the chief problems remaining is to find a formula whereby nations like Russia and France, which are also interested in Middle East oil, can be included in the agreement.

Highlighting the need for a speedy understanding on oil is the recent crisis in Syria, where French concern results in large part from fear of losing control over its 23% interest in Iraq oil (BW—Jun.23'45,p112).

• **Shipping**—A decision on basic U. S. shipping policy must be reached before an international conference is held on this question, but preliminary negotiations with other nations, particularly Britain, will probably be concluded before Congress is asked to. A bitter domestic fight can be expected over the Colmer committee recommendation that operating and construction subsidies be paid only on tonnage deemed essential to national security.

U. S. shipping interests are already disturbed by the fact that Britain is able to use the liners Queen Mary and Queen Elizabeth to gain a headstart in the North Atlantic passenger service. At the same time reports that British shipyards are seeking an agreement by which they would supply all replacements for the Greek and other Euro-

pean merchant navies have our shipbuilders worried.

• **Bretton Woods**—The Senate still must accept Bretton Woods, but assuming final approval is given the enabling legislation passed by the House (BW—Jun.9'45,p21), favorable action would still have to be taken by other leading United Nations before the international fund and bank could be established.

This means that actual operations can hardly start before 1946. Even then, the effectiveness of the fund, and to a lesser extent the bank, would be gravely limited unless the British agree to relax the currency controls which now stymie American traders in sterling bloc countries such as Egypt, Palestine, Iran, and India, and threaten to limit American sales even in western Europe.

• **Johnson Act**—Congressional action is still needed to repeal the Johnson act of 1934 which forbids private loans—similar restrictions apply to Export-Import Bank loans—to countries in default on debts arising out of the World War. Since few legislators wish to have the Treasury make all U. S. loans to countries such as Britain, France, Belgium, and Poland, repeal of the Johnson act

at an early date is taken for granted.

Considered of equal importance to a balanced program of U. S. capital exports are the expected removal of such restrictions from operations of the Export-Import Bank and an increase in its capitalization from \$700,000,000 to 2 billion or 3 billion dollars.

• **War Debts**—Primarily a decision for the U. S. alone, but dependent on agreements reached with other countries, is the liquidation of World War debts and a settlement of lend-lease obligations. With sentiment in both business and government circles almost unanimous for cancellation of war debts, action on this prewar sore-spot will probably be no more than a formality.

• **Lend-Lease**—Settlement of lend-lease will be more complicated. But on this question, too, opinion leans to the view that the slate should be wiped clean. But Article VII of the lend-lease agreements obligates the recipients to join the U. S. in lowering tariff barriers and removing discriminatory trade practices. A definitive lend-lease settlement will probably be postponed, therefore, until international economic agreements satisfactory to the U. S. can be achieved.

## Nelson in Movie

Major battle between 8 producers and independent seen for Hollywood if Will Hays is supplanted by Eric Johnston

Only Hollywood's super-superb adjectives and pyrotechnicolor could depict the battle in the movie industry if Donald M. Nelson's appointment as head of independent producers is met by the retirement of Will Hays as "czar" of the Big Eight (plus 17 others) and his place is filled by Eric A. Johnston, astute president of the U. S. Chamber of Commerce.

• **Nelson's Big Stick**—Nelson went to Hollywood this week so full of the challenge of his new job, and the influence he expects to exert in restoring healthy competition in the industry that his salary of \$50,000 a year (half that of Hays) from the Society of Independent Motion Picture Producers utterly satisfies him.

He isn't going to ride into the fray on a white horse (believes in the Hays movie morals code drawn up 22 years ago when the Fatty Arbuckle scandal threatened movie profits), but he's carrying a big stick—the threat that he might throw his influence toward government control.

• **Antitrust Charges Pending**—In the wings is the Dept. of Justice's antitrust suit against the Big Eight producers begun July 1, 1938 (BW—Jul.30'38,p17), which has stumbled over all the legal and delaying tactics that defense lawyers could invent.

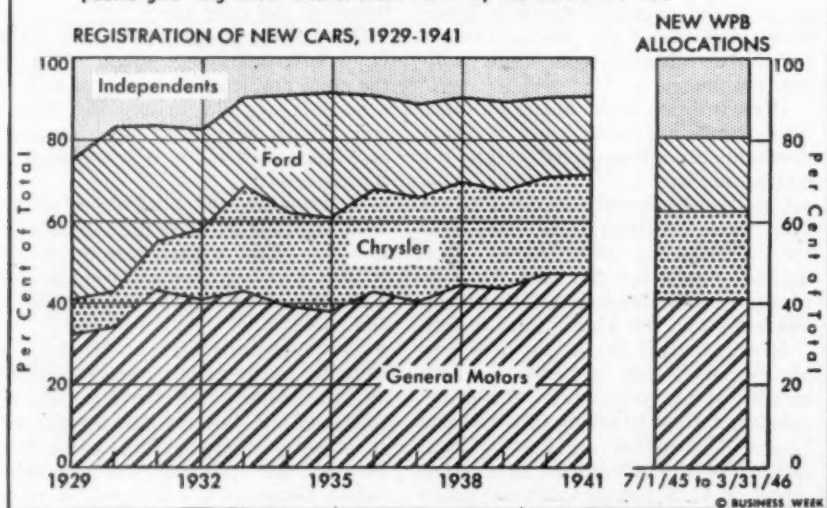
The government's action was directed at monopolistic practices in the production and distribution of films which, independent exhibitors complain, force them to buy releases that they don't want, and allow them those they do want only after showing in the producer-owned houses has taken the bloom off the demand.

A consent decree signed in 1940 (BW—Aug.12'44,p85) by the Big Five producers disposed of the original antitrust case. By this truce, the producer-distributor chains agreed to limit acquisition of new theaters, to arbitrate trade disputes, and to substitute a system of selling in blocks of five pictures for the block booking under which a theater-owner, willynilly, accepted substantially all of a studio's output.

• **Trial Date Set**—The provisions of this decree expired in 1943, and negotiations to renew and strengthen it were unavailable. Attorney General Francis Biddle renewed the Dept. of Justice suit to compel divorcement of the producing and

## AUTO ALLOCATIONS BRING A PROTEST

Quotas give "big three" smaller share than they had before the war.



The "Big Three" of automobile production—General Motors, Chrysler, and Ford—are not happy about the output quotas for the next nine months, announced by WPB last week (BW—Jun.23'45,p7). They contend that the 8,000-car minimum set up for small producers and newcomers to the field provides the independents' distributors with a competitive advantage, in that their percentage of the total will be considerably higher than that to which the average of recent years' sales would entitle them. WPB justifies the minimum on the basis that the smaller companies would be unable to produce at competitive prices under lesser quotas. However, normal distribution of the big three quotas among their individual divisions will allot considerably less than 8,000 to the small-volume lines such as Cadillac, De Soto, and Lincoln.

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exhibiting business. This month Attorney General got a trial date Oct. 8 when a special court of the federal judges in New York will hear the case.

The defendants are: Paramount Pictures, Inc.; Loew's, Inc. (Metro-Gwyn-Mayer); RKO Radio Pictures, Inc.; Warner Bros., Inc.; 20th Century-Fox Film Corp.; Columbia Pictures Corp.; United Artists; and Universal Pictures Corp., Inc.

• **Controls Bring Trouble**—Complaints of independent producers parallel antitrust charges against the Big Eight controls over distribution of films, ownership of theaters, and production.

Samuel Goldwyn, one of the biggest independent producers, releases his pictures through RKO and complains loudly that he is kept from getting adequate financial returns. To try to beat the Big Eight at their own game Goldwyn once rented an independent theater in Chicago to show "Up in Arms" and used to rent Howard Hughes' theater in Detroit before the big companies bought it. David Selznick, another big independent, doesn't complain of distribution difficulties, but believes producers should keep out of the exhibition business.

• **White Way vs. Suburbs**—The Big Five (Paramount, Loew's, RKO, Warner Bros., and 20th Century) own 5,000



Leaving the sound and fury of Washington behind, Donald Nelson tries a new potential battlefield. As head of the Society of Independent Motion Picture Producers, his chances for a stiff fight against the Big Eight producers look pretty bright—especially if hard-hitting Eric Johnston replaces Will Hays as their czar.

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**Packaging economy** will be important . . . to help give more value to the post-war shopper. You get transparent protection at *lowest cost* in Du Pont Cellophane.

Du Pont research has helped to make possible the 20 price reductions in the

history of Du Pont Cellophane. It's constantly at work developing and improving packaging films.

The many war uses of Du Pont Cellophane today limit the civilian supply. We hope the day will soon come when there will be enough to enable our converters and ourselves to meet all your requirements. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

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BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

movie theaters, most of them located downtown, most of them first run houses (which bag 60% to 70% of the gross a film makes), most of them of big seating capacity.

Independent exhibitors have 16,000 theaters, mainly scattered in the suburbs and small towns. These houses are of smaller size, and called in the trade "subsequent-run" houses. So far as is known, independent producers own no theaters.

• **An Extra Bite**—A typical complaint of independent exhibitors is that the big producers demand a 40% bite out of their box-office dollar but only 35% from the downtown theaters, and that Grade A films are held back from the suburban theaters by the "clearance" system so long that neighborhood theaters lose customer goodwill. Managers of these movie houses insist that there is a large group of customers who simply can't go downtown and pay high ad-

mission prices whose goodwill ought to be cultivated for the benefit of the entire industry. Block booking is another big complaint about which there's been much talk but little action.

The Little Three did not adopt the five-picture system included in the 1940 consent decree. Expiration of that truce left the Big Five free to return to block booking. Their failure to do so was seized upon by exhibitors as evidence that the producers had conceded nothing very valuable.

• **Hays Under Fire**—The Hays office is the storm center of a host of other angry charges. It has 25 member companies, only one more than Nelson's S.I.M.P.P. now that Warner Bros., in a huff, has withdrawn (BW—Dec.9'44,p38) from it. Effective Sept. 21, United Artists Corp., distributors for a number of independent producers (Chaplin, Pickford, Welles, Disney), is also resigning from the Hays office (Motion Picture Pro-

ducers & Distributors of America, Inc.)

For years trade papers have blasted the Hays office for what was called a do-nothing record. Some think the morality code is outgrown; some are angry at foreign quotas that limit U. S. films abroad. On the other hand Britain points out that it screens 130,000,000 ft. of U. S. films whereas the U. S. exhibited only 7,000,000 ft. of British films per year during the past four years. Hollywood is currently alarmed at the presence of J. Arthur Rank, British film leader, who owns 20% of Universal and has good relations with 20th Century. One report says that Rank is planning to release films here through United Artists.

• **Warner Protests**—The Hays office gets blame from others, like Henry Warner, who was infuriated by such incidents as that when Warner Bros. was obliged to pay full-rate salaries to borrowed stars who appeared in "Hollywood Can-

## Railroads Mop Up Behind Wheat Harvest Crest

Thousands of bushels of winter wheat in a gigantic pile on the ground at Eldorado, Okla., last week typified a triple threat, to world consumers, and to farmers, who feared losses, and to railroad presidents—who can never quite allay a worry that even this late in the war a failure might precipitate federal operation.

• **Congestion Relieved**—Even as late as last week, there was considerable alarm over the freight car shortage (BW—Jun.23'45,p18), but this week the Office of Defense Transportation's grain experts say that all wheat on the ground along the Frisco in Oklahoma, including Eldorado, has been cleared away. Other wheat roads were doing about as well in their areas.

At midweek only four elevators on the Frisco near Enid were blocked, where last week there were 16. Here and there a congestion appeared as the harvest crest marched northward its daily ten miles. But behind the crest, railroad and elevator men mopped up accumulations, amazingly moved grain about as fast as it came in.

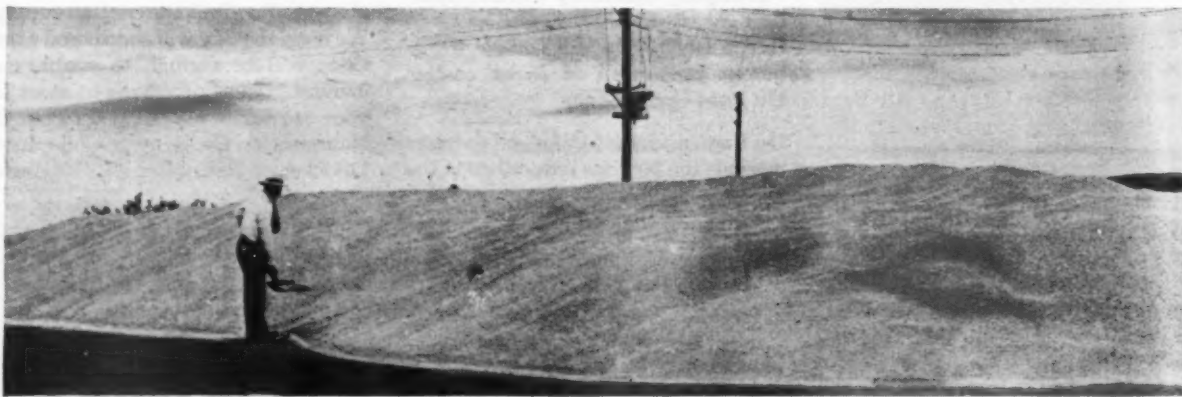
Nobody seems to be suffering—yet, although there's serious worry over what the situation will be in Kansas next month. At one time through-movement freight was blocking movement of grain in the Ft. Worth area, and grain had to be diverted around it.

• **Loadings Exceed 1944**—Lack of vessels at Gulf ports for old wheat export is responsible for an em-

bargo at Galveston, a permit system at New Orleans. If congestion continues, ODT will divert to new grain most of the cars now being used for Army wheat export to Gulf shipside.

This is the thirteenth consecutive week in which grain and grain products carloadings surpassed 1944. In the week ended June 16, 1945, these were nationally 52,900 against 45,329 a year ago, in western districts were 36,788 against 29,551.

These include flour, feed, and old grain. But as flour and feed move to consumption they make way for wheat in mill and terminal elevators. Even the movement of old wheat (which in recent weeks has seldom drawn a kind word) helps by freeing space in country and terminal elevators.



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Truck bodies of Ls, modern method of all-steel construction, can be built to any desired size or shape. The same distinctive style can be maintained for all branches of a national fleet—though built locally by the nearest Ls body builder. Shipping difficulties are eliminated and delivery hastened; maintenance is simple and costs are reduced. Interchangeable parts for Ls are readily available, and the nearest Ls builder can do a factory repair job overnight.

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# LINDSAY Ls STRUCTURE

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DISTRIBUTORS AND DEALERS THROUGHOUT THE COUNTRY

teen," a philanthropic venture for Army Emergency Relief. Warners paid the Screen Actors Guild \$250,000 out of court to settle this affair and announced sourly that the Hays office had not given them any aid.

Other complaints from independents against the system are that Hays has done nothing to correct such bookkeeping methods as those which schedule Grade A independent-production Christmas week and Holy Week when customers flock away from the movie or for Mondays and Tuesdays instead of Saturdays and Sundays. Many moviegoers share this grudge. In the industry, a week is rated as having ten points Saturday and Sunday account for seven of these in receipts.

• **Code Indorsed**—Chances of revision of the code that was set up to keep pictures clean are slim, for Donald Nelson also favors it.

Last week when he talked in New York with Hays and Nicholas Schenck, one of the powers behind the movie throne, Nelson tacitly approved continuance of the code.

• **Organize for Exports**—Under the Webb-Pomerene Export Act of 1918 producers may form combinations for export of films without incurring suit by the Federal Trade Commission for violating the antitrust laws. This month the major producers organized such a combination. It is likely that Nelson's independents will do so, too.

Possible favorable development is the Bretton Woods monetary agreement. Foreign quotas sprang up when foreign governments had to devise measures to keep their currency at home; U. S. films took rental money out. But now that the Bretton Woods plan seems likely to settle monetary international problems, U. S. film makers see a chance to break the quota system.

• **Earnings Annoy Patrons**—Hollywood is uneasy at being considered a monopoly and one that is raking in the coin despite higher taxes, labor costs, and other production expenses. Exhibitors are faintly sensitive to the charge that moviegoers must now pay 44¢ for a single feature where they paid 22¢ for a double feature before the war, and that a downtown movie under 88¢ is a rarity.

The startling fact which glares out of the financial statements of the big producers is the skyrocketing of net returns to totals that make the public angry. RKO's net jumped from a deficit of \$186,000 in 1939 to a profit of \$5,206,000 in 1944; Columbia from \$2,000 profit to \$2,006,000; Universal from \$999,000 to \$3,413,000; Paramount from \$2,738,000 to \$14,743,000; Warners from \$1,741,000 to \$6,953,000; 20th Century from \$4,147,000 to \$12-

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100,000; and Loew's from \$9,842,000 to \$14,637,000. Federal tax payments have mounted at an even faster rate. For example, 20th Century's income tax in 1939 was \$508,000. In 1944 the company's income and excess-profits taxes were over \$2,000,000. Paramount's tax bill rose from \$539,000 in 1939 to \$29,071,000 in 1944; Columbia's from \$8,000 to \$1,125,000 in the same period.

**Johnston Undecided**—In the face of such facts, Raymond Moley's new book, "The Movie Industry," is a scathing analysis of the faults in the industry is, says the New York Times' cynical movie critic, "a labor of (platonic) love."

It will please Hays, but it won't improve conditions in the industry. Chances of Eric Johnston's supplanting Hays (BW—Mar.10'45,p32) are anybody's guess. Johnston is generally supposed to have an eye on the White House and may not think a czar's title would help his political ambitions. If Johnston rejects the M.P.P.D.A. offer, the movie moguls may look for another "name." Many of them admit that Hays' influence in Washington, where the threat of government control similar to the Federal Communications Commission over radio is always a potentiality, declined almost to zero during the Roosevelt Administration. Harry Warner, whose pictorial and personal adulation of the late President made some film critics groan in their seats, was a far more effective ambassador.

**Nelson's Arsenal**—Nelson goes to Hollywood with Washington friendships and prestige built up as head of WPB and as the late President's special and trusted emissary to China.

## POWER CO-OP REJECTED

Proponents of public power in the Pacific Northwest rarely miss an opportunity to lay before the voters a proposal to expand the area served with electric current by the vast facilities of the Bonneville and Grand Coulee dams. Last week's special elections in Oregon afforded no exception. Salem voters were asked, for the second time in four months, to decide whether the Salem electric cooperative, which has a few patrons in West Salem, might extend its service into the capital city at the expense of the Portland General Electric Co., which serves the city. The proposal had the blessing of the Bonneville Power Administration.

As in February, the electorate rejected the co-op, but this time with more emphasis. Where, in the previous election, the margin of rejection had been 83 votes, the private power advocates this time emerged on top by 714 votes. The score: 2,979 to 2,265.



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## Fourth Food Chief Sets His Goal: More for Civilians

Public sacrifices are demanded—and heads roll—when anything goes wrong during a war.

That is as true on the home front as on the battle front. It has happened in war production and in price fixing. Quite as conspicuously, it has happened in food production and distribution—three times, all told.

• **Policy of Plenty**—The food job got its fourth boss on June 30 when New Mexico's Rep. Clinton P. Anderson as Secretary of Agriculture took over with J. B. Hutson, career man in the department, as the new chief of staff. Their policy will be plenty for all users—God willing and weather permitting—and the devil take the surpluses.

Anderson, from his seat on Capitol Hill, saw Claude R. Wickard, the farmer, boost production 14% after Pearl Harbor. However, Wickard was on his way out as early as the autumn of 1942 when he resisted the farmers' drive for higher prices. He kept his job as Secretary of Agriculture, but Chester Davis, banker-farmer, took over as War Food Administrator (BW—Apr. 3 '43, p14).

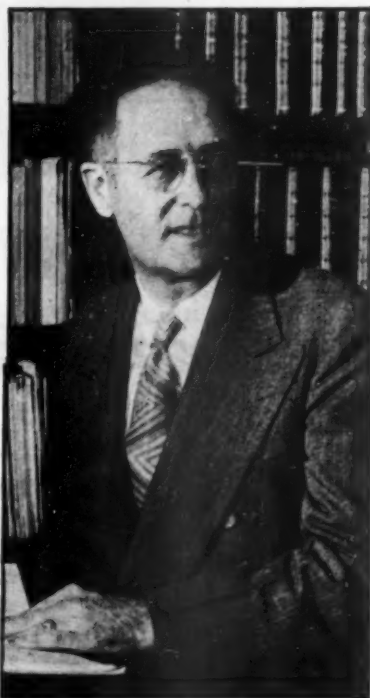
Davis quit within three months because he couldn't win a free hand in pricing and rationing (BW—Jul. 3 '43, p5), thus becoming the victim of intra-agriculture politics for a third time.

• **Jones' Job Abolished**—After Davis came Marvin Jones, Court of Claims judge and a former chairman of the House Agriculture Committee, who for some months had been helping James F. Byrnes fight a rear-guard action against inflation (BW—Jan. 23 '43, p7). Jones got production up 6% in 1944. However, he cut the hog program during last year's corn shortage (page 42), and he held down planting of major crops this year with both eyes on postwar surpluses. Now Jones' job as War Food Administrator has been abolished and the duties handed back to the Dept. of Agriculture—but not to Wickard who is now out.

Anderson's friends are convinced that the insurance man-dairy farmer, when he takes the food reins, will quit if he isn't given ultimate authority over pricing and rationing as well as production. He won his new job by means of the critical reports on meat and sugar (BW—May 26 '45, p24) of his House investigating com-

mittee in which the War Food Administration, OPA, and other agencies came in for a share in the blame, and he has no disposition to go around with his hat in his hand now.

Although the season is too far along to change things in 1945, the specialists agree that Anderson, given the necessary authority to provide farmers with sufficient production materials, can get a big boost in output next year. This he proposes to do, even though the war may have moved along so far that the produce



may prove excessive (whereupon it would be up to Congress to protect the farmers).

• **Wants Strict Allocations**—Meanwhile, Anderson proposes to get civilians in this country more food from existing supplies. He wants to give the armed services, lend-lease, foreign relief, etc., specific allocations which would be subject to change only in an unusual emergency and which they would not be permitted to overdraw.

Some slight amelioration of Anderson's problem was contained in last week's order of WFA shifting to civilian supply 20% of the beef of better grades now going to the military. The same order gave civil-

ians 30%, instead of the previous 10%, of the chickens produced in the Del-Mar-Va "Chicken Belt."

Screening of military requirements likewise resulted in a decrease of 5% in canned fruits and 10% in canned vegetables allotted to the armed forces.

• **Help From Congress**—Already Anderson's authority has been increased by this week's agreement of congressional conferees on legislation extending price controls for a year. The secretary received veto power over OPA food pricing. The Economic Stabilization Director can approve no OPA price order for food products or farm commodities (wool and cotton, included) without Anderson's written approval. Also, the secretary is empowered to exempt nonfederally inspected meat plants from slaughtering limitations.

First tasks for Anderson are to set acreage quotas for winter wheat seeding this fall and to exhort hog raisers to breed more sows. These two actions will indicate just how much steam the new secretary will put in the more-food drive (although he will be able to go all-out for little pigs only if this year's corn crop makes up for lost time). Already, D. of A. men are off to buy Cuba's 1946 sugar crop—and to try to get a little larger share of the current harvest. Early this week Anderson said Cuba had assured the U. S. that the bulk of the 1946 production would be available for this country. But the crop is short, and Anderson said he intends to get more farm machinery and fertilizer to the island.

Anderson's under secretary, Hutson, has been on loan to the War Food Administration and more recently to the Office of War Mobilization & Reconversion. Hutson is a former Agricultural Adjustment Administration man and was director of food production under Davis and Jones, breaking with Jones over the latter's failure to try to increase 1945 food output.

• **Opposes Controls**—The new under secretary's postwar policy—which may or may not be indoctrinated into his new boss—is to prevent a return to acreage and marketing controls for crops. He would sell surpluses abroad, at a loss to the government if necessary, in order to maintain large output and high farm income.

## Sweet Charity

Vilter Mfg. Co. emerges from vicissitudes of ownership as nonprofit and, presumptively, nontaxable institution.

An old Milwaukee company was looking for a buyer last winter. Its half-dozen owners had disagreed hopelessly about policies. Their sole unanimous idea was to sell out for \$1,300,000 their 65% interest in the Vilter Mfg. Co., which had earned no spectacular profits in its prewar years of making refrigeration equipment for the plants of neighboring brewers.

**Altruism Rampant**—Then began a little royal to buy the stock. Early in the negotiations, a prospective buyer proposed turning Vilter into a nonprofit corporation for charitable purposes. Two other nonprofit proposals of philanthropic aspect promptly popped up, leaving observers befuddled by the sudden change of social conscience.

The company actually changed hands twice. It is now a nonprofit corporation controlled by a six-man charitable trust, newly organized and headed by Earle B. Tilton, vice-president and general manager of Vilter before the company was sold.

The stock brought the old owners the stipulated \$1,300,000. Of this \$775,000 came out of Vilter's own reserves and \$535,000 from a loan raised (at 6% interest) by a set of purchasers who owned the business for six weeks after having acquired it from the original owners. These interim owners then sold out to Tilton's charitable trust.

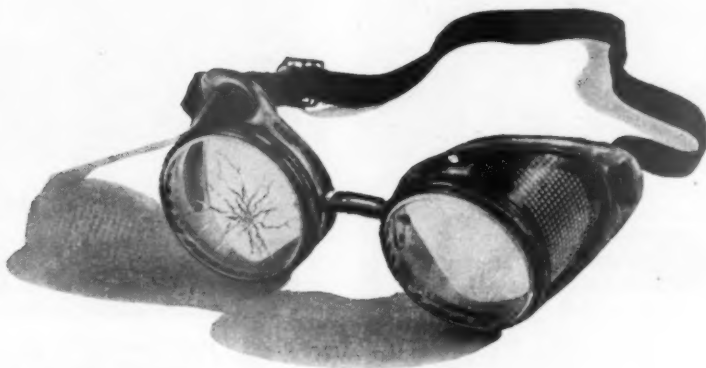
Vilter last year earned \$625,000 before federal taxes, \$200,000 net after taxes. A bona fide charitable institution operating such a business is not subject to federal income and excess-profits tax.

**Charitable Purposes**—Executive salary levels in the company have not been inordinate, and Tilton has announced that they will be kept at reasonable figures. During sales negotiations, his own salary was published as \$18,000 a year.

Profits and tax savings are to provide retirement and unemployment benefits for Vilter employees, to rehabilitate veterans, to support university research in air conditioning for the benefit of the entire industry, and to maintain university scholarships.

Federal income tax officials pricked up their ears at the announcement that Vilter Mfg. Co. is a nonprofit institution operated by and for employees, but the Bureau of Internal Revenue tra-

## This Pair of AO Goggles Paid for More than a Hundred Others



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# NEW WORLD

## "ALADDIN'S LAMP"

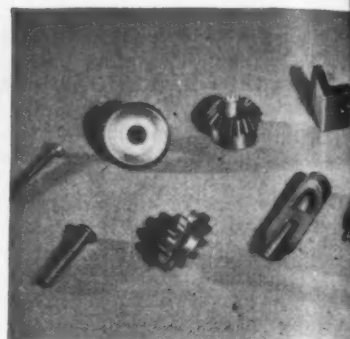
A REPORT TO AMERICA ON NEW ELECTRONIC "MIRACLES"  
PERFORMED BY A-C—THEIR SIGNIFICANCE TO INDUSTRY



**THIS TRIODE** (half actual size), similar to the familiar detector-amplifier tube in your radio, is the heart of industry's new, swift high-frequency Induction Heating Processes.



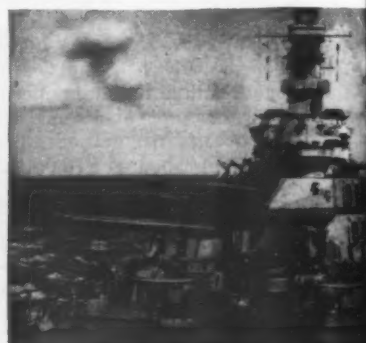
**1** Built around the power oscillating tube at left, this new Allis-Chalmers production tool performs amazing industrial miracles—*Induction Heating*—introduces new methods of heat-treating metals.



**2** Secret is a high-frequency magnetic field set up by induction. In this field, metal *heats itself*! Go bushings, many other parts can annealed, brazed, melted or hardened with incredible swiftness.



**3** Already tested and perfected, A-C's electronic generator promises new applications of Induction Heating to many different operations—swift, new solutions to heretofore stubborn industrial problems!



**4** Other revolutionary electronic mechanisms, developed by A-C, are work on U.S. war vessels—flashing vital alarms and signals, feeding power to radar apparatus and electrically operated guns and cannons.



**5** In use on many smaller warships, is Allis-Chalmers' exclusive Pilot House Control. Important in close combat, this intricate mechanism makes possible *direct and instant* control of ship's engines from the bridge.



**6** Still another development — the Mercury Arc Rectifier — greatly speeded mass production of U.S. warplanes in period after Pearl Harbor. It was first introduced in practical form by A-C engineers!



**7** This giant electronic device simply and reliably converts a-c to d-c current—the kind of power needed for electrolytic reduction of war-essential aluminum, magnesium and other light metals.



**8** In aluminum plants like this, tremendous work-capacity of A-C Rectifiers was first proved. Latest trend is toward smaller units of lower voltage for new applications in many industries.



**9** Electronics promises no end of wonders. For postwar trains, planes, homes and plants, A-C developments hold practical keys to new comforts, new safety, new products of every description.



**10** Never satisfied, A-C research engineers are constantly at work exploring cheaper, better ways of solving challenging problems in *every* industry. Put them to work for you!

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This same feature—*welded construction*—is also responsible for finer, faster work. With uniform contact assured, the *Welded Pad* must and does do a better job in less time. It's the perfect pad for dry cleaning and burnishing waxed floors to a safer, wear-resisting finish . . . in a single operation!

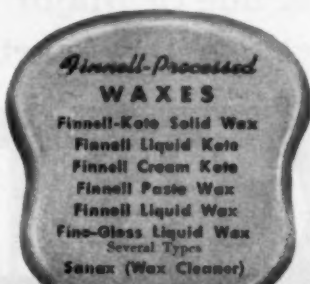
*Finnell Pads* are self-adjusting, and can be used on any fibre brush, with any disc-type machine. Sold in limited quantities. Sizes: 5, 7, 11, 13, 15, 18, and 21-inch. Grades: No. 0—*Fine*, for cleaning, polishing, and burnishing. No. 1—*Average*, for cleaning and scrubbing. No. 2—*Coarse*, for use on rough floors. No. 3—*Very Coarse*, for removing paint and varnish.

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ditionally withholds judgment as to whether altruistic avowals exempt an industrial company from federal taxation, in practice is content to wait until a company fails to file a return before testing the question—in court, if necessary.

## Double Headache

Fertilizer industry faces threat of government operation of phosphate plants in addition to surplus nitrate works.

The fertilizer industry has a new reason for the jitters in addition to possible government operation after the war of surplus nitrate plants (BW-Dec. 9 '44, p. 31).

Its additional apprehension runs back to 1943 when Sen. Lister Hill of Alabama, weary of fighting to have the War Production Board allocate materials for a huge fertilizer plant in Mobile which the Tennessee Valley Authority proposed to erect, introduced a bill serving notice on the WPB to withdraw its "stop order."

• **Three Plants Proposed**—From this beginning, a movement now is mushrooming in and out of the government for building at least three fertilizer plants with federal funds—the Mobile plant, and two in the West near the vast Utah-Idaho potash and phosphate deposits—and giving every possible assistance to farmer cooperatives to build as many more plants "as may be deemed advisable" to round out a national fertilizer program.

To government agricultural scientists, the program means only that the government finally is taking heed of their warnings that more plant food value is being taken out of the land every year than is being replaced with cover crops or other like measures for building up the soil. To the fertilizer industry it looms as a direct threat to its existence as a private enterprise.

• **Another Spokesman**—The program is now wrapped up in a bill (S. 882) introduced by Sen. Hill, Sen. John Bankhead of Alabama, and Rep. John W. Flannagan of Virginia, chairman of the House Committee on Agriculture. Just how much of a threat it appears to the fertilizer industry is emphasized by developments now taking place within the industry itself.

A new organization, calling itself the American Plant Food Council, has been formed with an announced aim of bringing better relations among the industry, the public, and the government and to "keep the ownership and operation of

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Photo of Boeing B-29  
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## PHILANTHROPY, THE PUBLIC, AND PUBLICITY

Bidding for public favor, Chicago's striking truck drivers turned blood donors last week to counteract reports of food shortages attributed to their walkout. Ready for cameramen (above), the donors were made welcome by the Red Cross which ignored criticism that publicity not patriotism had inspired the action. Anxious to fill quotas for fresh blood, the Red Cross reported that its job was to collect blood, not inquire into motives—and obtained 200 pints from as many strikers. At midweek, the walkout appeared over when officials of the Independent Truck Drivers' Union complained of provisions of the National War Labor Disputes Act, termed the walkout "unprovoked," ordered the membership back to work. The decision, however, was not unanimous.

these [Hill bill] facilities in the hands of private enterprise."

The organization hopes to become the force that can sell the achievements of the industry to the public and prevent its sliding into the hands of the government. For years the fertilizer industry has had but one spokesman—the National Fertilizer Assn., run largely by Charles Brand who retired to private life last April. From the viewpoint of the organizers of the new group, however, the N.F.A. cannot speak for the industry as a whole.

• **Voice for Industry**—Under its rules, the voting membership in the N.F.A. is limited to the mixers of fertilizers. The producers of the ingredients such as nitrogen, potash, etc., while entitled to membership, have no voice in its decisions. Under the bylaws of the new council, however, everyone entitled to membership can vote on policy. Several of the big producers already have joined, and there is a possibility that others will switch to membership in the new organization.

One test of the chances for enactment of the Hill-Bankhead-Flannagan bill will come in August when the executive committee of the National

Council of Farmers Cooperatives passes on the question of the need for the government's getting into fertilizer production on a big scale. At that time the committee is to consider as its possible policy a report prepared by a special group that has studied the question of expansion of government fertilizer production and has recommended against it.

• **Surplus Plant Problem**—Ultimate disposition of the government's big synthetic ammonia plants has been worrying the industry for many months. Nine were built during the war and operated either for or by Army Ordnance for production of explosive ingredients. They have a combined capacity of about 750,000 tons of fixed nitrogen a year, more than the U. S. consumed for all purposes in any prewar year.

On the basis of what is considered a desirable level of fertilizer production in the postwar period, some oil scientists are urging that six of the plants having a total rated capacity of 300,000 tons of nitrogen annually be converted to fertilizers. Their recommendations have been approved by the Committee on National Fertilizers & Lime Policy, set up by Secretary of Agriculture Claude

Wickard to explore the fertilizer problem.

The committee proposes that the plants be sold or leased to private industry, including farmer cooperatives. This would be satisfactory to the industry if the recommendations stopped there. But they propose that sale or lease be "under arrangements which the Dept. of Agriculture finds will insure use of the plants for the benefit of farmers in the public interest," which means putting them under the government's thumb, and all that ensues.

## ICC Disapproves

Greyhound loses another petition for federal approval of plans to buy established line for expansion of bus system.

Promoters and backers of the embryonic All American Bus Lines, Inc. (BW—Nov. 11 '44, p. 20), must be looking with an approving eye on the latest recommendation of an examiner that the Interstate Commerce Commission disapprove a proposal of Central Greyhound Lines to purchase the Ender Bus Lines, a small operation centering around Benton Harbor, Mich. Central Greyhound Lines is one of the most important of the 16 operating units making up the Greyhound Corp., Chicago.

• **A Pattern Emerges**—The Ender case, taken by itself, doesn't mean much. But when it is added to other recent ICC decisions rejecting Greyhound applications for permission to acquire established bus lines, the report pretty clearly defines the pattern being followed in Greyhound's attempts to add to its present holdings.

Involved in disapproved Greyhound plans have been Arkansas Motor Coach Co., which operates from Memphis to Texarkana via Little Rock; Florida Motor Coach Lines, with exclusive franchise rights between Jacksonville and Key West; Valley Public Service, which covers southern and southeastern Ohio with local rights; and Penn Ohio Coach Lines, in eastern Ohio and western Pennsylvania. An application to buy West Ridge Transportation Co., which serves locally from Buffalo and Erie to Pittsburgh, has been pending before the ICC for several months.

Appeals have been filed, and rehearings asked, in some of the cases, but so far Greyhound has been effectively blocked for the past five years from adding to its interstate operations.

• **Lines Must Be Sold**—What makes the picture appear exceptionally rosy to All American Bus Lines interests is

the fact that disapproval of Greyhound purchase plans may give All American an advantage in future bidding for the lines, which must be sold eventually. Practically all the lines Greyhound has been trying to acquire are owned by utility holding companies, the outgrowth from their days of ownership of interurban electric lines, and which the Securities & Exchange Commission has ordered sold. Until the formation of All American, Greyhound was the only logical buyer, since the latter could fit such lines into its present system, which crosses and crisscrosses the United States, with some operations extending into Canada.

A puzzler for Greyhound is the variety of reasons given by ICC and its examiners for disapproval of the purchases. In one case ICC said that Greyhound was paying too much; in another case, not enough. Railroad ownership of a minority of stock in some of the Greyhound operating companies was cited in still another proceeding, and finally formal objections were filed by a labor union which has a contract with the present owners of one line.

• **Looking Eastward**—All American Bus Lines is already well established between Chicago and Pacific Coast cities.

If it should purchase the operations in the East and South which Greyhound has been seeking, and add them to present holdings in the East, Greyhound would have a competitor of real size and importance. Under the recent ICC decisions on Greyhound purchases, that eventuality could easily occur.

Meanwhile a few of the Greyhound pioneer operators are looking beyond the borders of the United States. In Central and South America they see great possibilities based on their know-how and organizing ability. Perhaps, these operators say, they will come up with another continent-spanning bus system—and without an ICC to get in their hair.

## COLA SUGAR RELEASED

The Coca-Cola Co. has released about 150,000 tons of sugar to the War Food Administration from storage in Peru and Puerto Rico. Because this sugar already figures in WFA production figures, it won't change the estimate of the present critical supply.

The sugar was earmarked for postwar use. A third of it is in Puerto Rico.

At the same time, OPA announced that it would drop its injunction suit against Coca-Cola Co. but that it intends to proceed with the triple-damage and injunction suits against Eastern Sugar Associates (BW—Oct. 7'44, p99) on charges of handling sugar at above ceiling rates.

# ALL THREE CHOOSE G-E



Users of fluorescent lighting, engineers and maintenance men are improving their lighting service by switching to G-E Watch Dog Fluorescent Starters. These manual reset starters are providing efficient service and positive protection for 30-, 40- and 100-watt lamps in commercial and industrial installations all over the nation. Here are only a few of the many reasons why all three choose G-E.

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## Raisins Eased

Compulsory drying orders are dropped, but new controls are applied on use of grapes for wine and home consumption.

Promulgation this week of ceiling prices on California juice grapes and on Arizona and California table grapes was a further step in the joint aim of OPA and the War Food Administration to divert more grapes into raisins. The next and final step, due in a fortnight, will be to lower the retail ceilings on wines from California grapes.

Not required to dry any specific proportion of the grape crop for the first time in four years, the raisin industry has adopted a wait-and-see attitude on these oblique approaches to its raw material supply problem.

OPA-WFA started by scrapping the compulsory raisin grape drying regulations in effect since 1942. These regulations made it possible for the industry to produce 400,000 tons of raisins in 1943, 305,000 tons in 1944, and roughly half of these amounts was left for civilians after the government took its

cut for the troops and for our Allies.

• **Other Steps Taken**—To stimulate the diversion of grapes into raisins in the absence of compulsory drying regulations, the price and food agencies took several other steps. They increased the grower support prices for raisins (\$190 a ton for Thompson seedless, natural, or sun dried) to include the drying incentives paid to producers in previous years. They removed existing ceilings from growers' prices.

• **Brake on Wineries**—The ceiling prices will be designed as a brake on the use of grapes for wine or for home consumption as fresh fruit. They will determine, for example, whether the wineries can afford to offer premium prices for grapes and thus divert them from the raisin processing plants.

Juice grapes, brought under control for the first time, command a ceiling of \$2 per 36-lb. lug, plus freight. Table grape prices were set at \$3.20 per 24-lb. lug for grapes grown in Arizona and in Riverside, Imperial County, and the Borego Valley area of San Diego County, Calif. For other California table grapes, the prices vary seasonally from \$1.65 to \$2.40 per 28-lb. lug.

Wine (crushing) grapes will not be controlled by ceiling prices. The pricing agency has announced that the

forthcoming ceilings on wines will reflect a price of \$60 a ton for crushing grapes, as compared with \$78 in 1943 and 1944.

The 1945 goal of 260,000 to 275,000 tons of raisins set by OPA-WFA—compared with the greater tonnages in the two preceding years—probably is a reflection of the shift in the war from the European to the Pacific theater. Presumably the armed forces, while hampering at Japan, can look to Australia for a supplement to their raisin ration.

## Pig Crop Off

Request for 1945 increase and price incentives were too late for results on farms. Biggest decrease reported by South.

Into the lap of incoming Secretary of Agriculture and War Food Administrator Clinton P. Anderson, the Dept. of Agriculture last week tossed the gloomiest pig crop report it has issued in years.

• **Off 3,741,000**—The report showed that only 51,687,000 piglets had been born this spring, 3,741,000 fewer than in the spring of 1944, some 22,347,000 fewer than in the spring of 1943, and only 2,453,000 more than in the spring of 1941.

The figures left government estimators red-faced. Only last week (BW—Jun.23'45,p41) they had expressed belief that the spring pig crop might show about 53,000,000. But to some Chicago stock experts the report was not surprising. They have been predicting all along (BW—May26'45,p19) that the spring pig crop would show no increase.

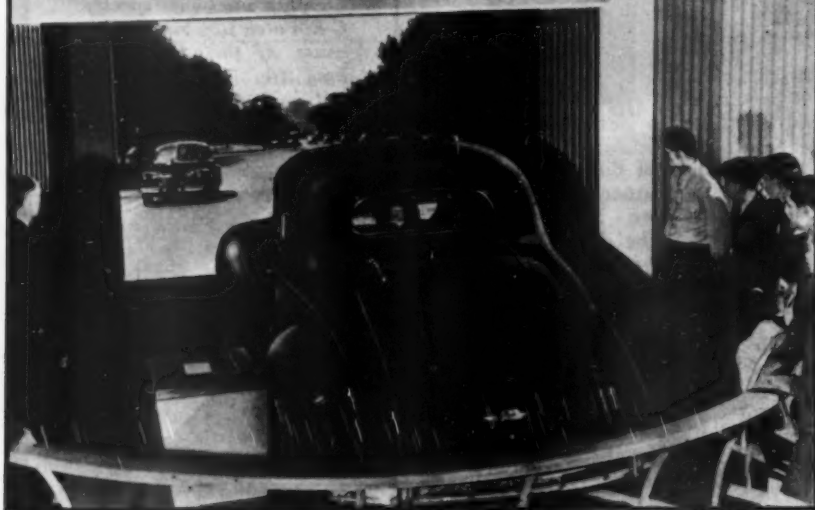
• **Incentive Too Late**—Departing War Food Administrator Marvin Jones had asked farmers to produce 57,500,000 pigs this spring, but the request and price incentives came too late for farmer compliance.

Government livestock specialists say that the farmers failed to produce more pigs this spring also because the farmers found it more profitable to do more dairying, which entitled them to government milk subsidy.

• **South Falls Short**—Most of the reduction this spring was in the South. Iowa, leading hog state, had an increase of 262,000, but the Corn Belt as a whole was off 603,000. The South is down 2,291,000, the West 478,000, and north atlantic states 369,000.

The report disclosed farmers' intentions to breed 12% more sows for fall litters this year than last, but these litters won't be made into pork and lard until next summer.

## ATLANTIC'S DRIVERATER



### DANGEROUS JOURNEY—IN PERFECT SAFETY

Crowding a whole Sunday trip into three minutes, Atlantic Refining Co.'s new Driverater (above) provides a refresher course in postwar motoring. It differs from earlier motorist testers (BW—Aug.29'36,p12), by providing a real automobile in which the driver works all controls to squeeze out of seven traffic incidents created with hair-raising realism by a color sound film. Opened this week in Philadelphia's Franklin Museum, the device automatically stamps a card indicating each driver's rating for steadiness, vision, and reaction time. On the opposite side are suggestions for correcting weaknesses revealed.



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# GLOBE

LIFTS and ELEVATORS

## West's Aluminum

Abundant labor and cheap power will be chief factors in Western States Council's bid to hold light metals industry.

In any appraisal of the changes which the war has wrought in the geographical distribution of American industry, the peacetime future of the Pacific Northwest's adolescent aluminum industry is bound to figure as the \$64 question.

• **West Sounds Wary**—Can the aluminum industry of the Northwest (BW—Oct. 21 '44, p. 17) survive the pressures of postwar price competition from more centrally located producers?

Out of the West last week thundered an affirmative if not too thoroughly documented "yes"—with exclamation point supplied by the Antitrust Division of the Dept. of Justice. Full integration, better freight rates, development of new markets—all these remained in the realm of doubt and subject to further exploration. But the West served notice that it's playing for keeps.

Occasion for the demonstration was a conference of the Western States Council, convened in Seattle to do for

the West's stake in light metals what the Salt Lake City conference of the same body had done four months before for a western steel industry (BW—Feb. 24 '45, p. 32). The council is an association of chamber of commerce executives from eleven western states, aided, encouraged, and abetted by western industry.

• **Sale to Alcoa Opposed**—Presence of the Antitrust Division's representative Irving Lipkowitz, and his calculated thrusts against monopoly in the aluminum industry, constituted a direct slap at the Aluminum Co. of America, which has been an all-weather target for the trust busters (BW—Mar. 17 '45, p. 7).

Lipkowitz told the conference that to permit Alcoa to buy any of the aluminum plants built for and owned by the Defense Plant Corp. would be to encourage an "economic totalitarianism." As matters stand, he said, 96% of the country's alumina capacity and 90% of ingot capacity are under Alcoa management, either through ownership or through operation of DPC facilities.

• **Leasing Proposed**—In addition to its eastern properties, Alcoa owns and operates a plant at Vancouver, Wash., and operates two DPC-owned plants at Troutdale, Ore., and Spokane, Wash. Olin Industries, Inc., operates another DPC plant at Tacoma, Wash., and Reynolds Metals Co. owns and oper-

## Chicago Remains the Rotarians' Mecca

Efforts to move Rotary International's home offices from Chicago to a Denver eminence commanding a view of 150 miles of mountains apparently have been forestalled. Until the end of the war, at least, headquarters of the still-growing Rotary Club (245,000 members) will probably remain in the crowded business office location at 35 E. Wacker Drive (the Pure Oil Building)—overlooking the Chicago river.

• **Mother Club Protests**—Chicago's mother club of Rotary, formed in 1905 (present membership, 750), contends that Rotarians generally were taken by surprise when the threat of a move to Denver became very real last winter.

A "permanent home" committee unanimously recommended the Denver location to the R. I. board of directors, for its inspirational and recreational advantages. The board delayed decision until its May 23 meeting in Chicago. This gave time for an eleventh hour drive by Chicago Rotary, Assn. of Commerce,

and a special committee of 200 Rotary and non-Rotary Chicagoans to stop the Denver drive.

As an employer, Rotary headquarters with personnel totaling 140 is small potatoes in Chicago. But the A. of C. sensed a blow to Chicago prestige if Rotary should desert its birthplace.

The Denver bid was backed by plans for a dignified stone building to be set on a 19-acre tract, formerly a cemetery, just above Cheesman park. The land is called the highest tract in mile-high Denver.

• **Other Sites Suggested**—Chicago, never doubting headquarters would remain there, has suggested twelve sites—from Glencoe, 20 miles north of the city, to the University of Chicago on the south side.

A new eight-man committee has been named, with \$25,000 to use for taking options on possible sites in Denver, Chicago, or elsewhere. But final decision is to be made only at the next fully attended Rotary convention.



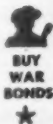
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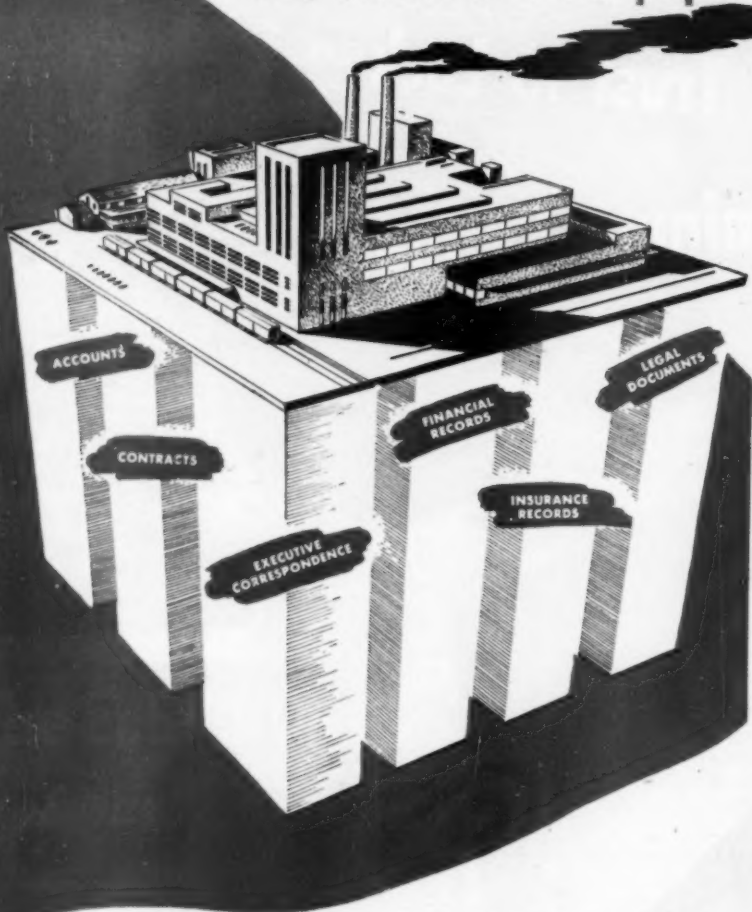
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ates a Reconstruction Finance Corp. financed plant at Longview, Wash., in addition to plants at Listerhill, Ala., Louisville, and elsewhere in Kentucky and the East.

Sen. Warren G. Magnuson of Washington, likewise an outspoken foe of monopoly in aluminum, recommended that the DPC plants be leased to private operators for a period of years to determine a basis for an ultimate sale price.

• **Integration Needed**—Although the West's share of the aluminum industry has risen from nothing in 1939 to about 38% of ingot capacity today, it was likened to the middle layer of a cake—an abundance of ingot capacity, but inadequate supplies of raw materials for the lower layer, and little fabricating and finishing capacity for the top layer.

West of the Mississippi River the only raw materials sources are the DPC plant at Laramie, Wyo., which makes alumina from anorthosite, the DPC plant at Salt Lake City extracting the metal from alunite, and the Columbia Metals Corp. plant at Salem, Ore., which is to make alumina from clay.



## THROAT BATTERY

Actuated entirely by harmless electric currents set up by throat vibrations, a new voice-powered telephone permits communication for rescue crews in mine disasters where danger of explosions from sparks precludes the use of ordinary battery-powered phones. A highly sensitive transmitter attached to the throat of the rescue-crew leader underground is connected by a two-strand wire with the crew above-ground. The device earned for its inventor, Franklin Griffiths, Farmington, W. Va., the Interior Dept.'s top award for outstanding achievement—\$1,000 bonus, plus a salary boost.

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after repeated postponements, the plant is scheduled to open in September. The Northwest's sole contribution to the top layer of the cake, according to Lipkowitz, is the DPC-Alcoa facility at Spokane, which accounts for 18% of the total rolling capacity in the United States.

These facts boil down to the expressed need for integration.

• **Same for Magnesium**—The same need exists in some measure, it was argued, in the West's other light metal—magnesium. Production facilities are in operation at the Electrometallurgical Co. plant near Spokane and at Henry J. Kaiser's Permanente Metals Corp. plant at Permanente, Calif. (and until recently at the Basic Magnesium, Inc. plant at Las Vegas, Nev.).

But of the 55 foundries in the U. S. that are sand-casting magnesium, only seven are in the West; of 14 die-casting plants, only five are in the West. And other than the aircraft companies, there are few regular fabricating shops that are familiar with the metal.

• **West Lists Advantages**—Abundant labor and cheap power are the high cards with which the Western States Council believes the disadvantage of distance from markets can be offset in the postwar future.

How to capitalize on these virtues, how to create postwar demand for the metals in new products—these were the problems which the council staked out last week for exploration. A committee of 15 was designated to conduct the investigations.

## TO STRESS CIVIL SUITS

Future government antitrust suits involving patents probably will be civil, rather than criminal, regardless of the nature of the charges. This is the result of the acquittal last week, by a federal grand jury, of E. I. du Pont de Nemours & Co., Rohm & Haas, Inc. (of Philadelphia), and officers of both corporations of charges of participation in an international cartel to eliminate competition in the field of plastics.

Justice Dept. trust busters, noting that it took the jury ten hours to bring in a verdict, have decided that most patent cases are too technical for a jury to grasp—hence the decision to turn to civil suits and nonjury trials whenever feasible. Du Pont and Rohm & Haas probably will now have to face a civil suit.

The jury's decision is a sharp setback to the Justice Dept., which considered the du Pont-Rohm & Haas case so important that it appealed to the President for permission to prosecute it over protests of the military that this would interfere with the war effort (BW—Oct. 21'44,p16).

# PRODUCTION

## N.E. Steel—A Long-Term Trend?

Wartime substitution of lean for rich alloys poses a big postwar question for the industry and its nickel, chromium, and molybdenum suppliers. Evidence of continued use is growing.

When a small group of technicians from government and industry sat down in Washington early in 1942 to discuss ways to conserve precious alloying elements for steel, they started a fundamental change in steel specifying which gives evidence of becoming a long-term trend. The National Emergency lean alloys, evolved out of sheer necessity (BW—Jun. 27 '42, p. 78), marked a turn from rich alloy use likely to continue well past the war emergency period.

Because office space was scarce that early war day, the first meeting was conducted over a basement cafeteria table. Since then the topic of N.E. steel has moved upstairs to the most important desks in the steel industry and the industries it supplies.

**• Looking Ahead**—The questions are manifold. Will N.E. grades be called for after plenty of alloying elements are again available? Can they do as good a job? What will their continued existence mean in production and profits for the producers of steel and alloying metals, as well as for the users?

Most important of all, what will be the extent of demand for alloy steel, with its special quality (hardness), and sometimes its special shortcoming (lack of ductility)?

Alloy steel has experienced its period of greatest demand since the war. In 1938 it accounted for approximately 1,654,000 ingot tons of production, only 5% or so of total output. In 1943 production of 12,500,000 tons represented 15.2% of total steel produced, and last year volume was upward of 10,000,000 tons, 11.4% of the total—thanks principally to war demand for heavy-alloy armor plate.

**• Boost for Profits**—Because alloy steel is premium steel, priced well above carbon grades, this swollen volume helped steel companies maintain profit positions despite increasing costs of labor and other factors. Naturally it was a potent factor also in the record production volume of key alloy producers, such as International Nickel, Climax Molybdenum, and Union Carbide & Carbon.

But once the war ends and alloy requirements taper, the picture will change. And at that point, N.E. steels figure most importantly.

If they continue in demand, and if the present price structure is maintained, steel mills may be able to get much of their reduced alloy requirements from scrap. This would help to compensate them for any decline in their remunerative alloy business.

**• Scrap Is Troublesome**—But, if alloy steel's price structure is revised so that lean alloys sell for less than their rich-alloy counterparts, as some believe should be done to justify continued use of N.E. steel, mill profits could be adversely affected by the combination of lowered volume and lowered return.

Alloy scrap itself is another headache for steel mills. They would like some-

one to figure out a way to sort scrap so that it can be remelted and converted into steel that will meet buyers' specifications. Otherwise, it might be necessary to carry large inventories of remelted scrap, tested for alloy content.

As far as the alloy producers themselves are concerned, their outlook for sales to steelmakers would be narrowed by an increased proportion of N.E. production. And, conversely, that outlook will be widened by the degree to which steel users return to the old rich-alloy S.A.E. (Society of Automobile Engineers) grades.

**• Some Agreement**—The main factors which will determine whether the N.E. grades continue at the level of their present government-sponsored popularity are price, scrap metal content, flexibility in use, and the personal preferences of the metallurgists, engineers, and production men who machine metal into articles of commerce.

On the last score, there is growing agreement which, however, is not complete and is far from uniform.

Manufacturing company metallurgists, who before the war were generally disciples of high-alloy specifying, have largely reversed their previous position. Most now feel that the N.E. grades have justified places for themselves, particularly the 8600-8700 series. (These two are identical in nickel and

## Lean Alloys Conserved War-Precious Metals

Characteristics and performance of steel vary widely, depending on its chemical composition, which may include, besides iron, such elements as carbon, silicon, sulphur, nickel, molybdenum, chromium, manganese, and a whole host of others. Minute quantities of one or another of these elements will affect steel's hardness, toughness, ductility, and other qualities.

**• Conservation Measure**—Definite specifications covering the chemical composition of steel were set up years ago by the Society of Automotive Engineers, in cooperation with the American Society for Metals and the American Iron & Steel Institute. Each such steel was given an S.A.E. number.

To conserve scarce alloying metals during the war, WPB in 1942 set up, with the blessing of the technical bodies, new substitute specifications for various S.A.E. steels. These National Emergency (N.E.) steels are three-way alloys, which means they

utilize nickel, chromium, and molybdenum combined in small quantities to get the same results—or about the same—as the S.A.E. steels got with larger total percentages of one or two alloys.

**• Got Tougher Metal**—Here is an example of the way this worked:

An air drill manufacturer using S.A.E. 2317 steel, containing 3.5% nickel to give it the desired characteristics, was told to substitute N.E. 8620 steel. This contains only 0.5% nickel, plus 0.5% chromium and 0.20% molybdenum. After he had made and heat-treated his article, he found its tensile strength and yield point exactly the same, but it was 15% tougher. In this case the substitute was better than the original.

The saving in virgin nickel was even greater than the percentages indicate, for the steel mill supplying him got all the nickel, 60% of the chromium, and 30% of the molybdenum from scrap. Direct saving was 60 lb. of nickel per ton of steel.

chromium, but 8700 has more molybdenum.) But some of their production men—often opposed in these specific viewpoints to the feelings of the lab technicians—feel that N.E. grades require more care in heat treatment and occasionally do not machine so well.

• **Wide Variance**—If opinions were uniform throughout manufacturing industry, the picture would be more understandable. One metallurgist, for example, believes N.E. 8700 steels substitute well for rich alloy S.A.E. 4600 gear steels, and satisfies himself by the results in the shop adjoining his lab. Another, however, leans away from a similar substitution because of distortion problems encountered on quenching the N.E. 8700 series; he personally prefers the N.E. 8600 grade.

Production men have a hand in the argument. As a consideration for retention of N.E. 9400 series, one company cites the fact that it has some 50,000 blueprints so specified, and changing them might well cost \$25,000 plus drawing board time.

Front offices interest themselves because of still other considerations. One firm, for instance, owns patents on a specification of steel it developed several years ago and has promoted in its advertising. It is now using an N.E. grade as a substitute. If it finds after the war that it can buy the N.E. grade cheaper than its own patented specification, what course will it take?

• **Hardenability Factor**—There is fair agreement among many metallurgists that the tendency to specify steel on the basis of its hardenability (BW—Aug. 5'44, p68) works to the advantage of the N.E. grades. One consideration in the entire N.E. steel development was a desire to provide a series of levels of hardenability—which means simply the degree of depth to which steel hardens on quenching—which would run in rough parallel to each other, each going a step higher. Too, a few metallurgists feel hardenability can be controlled within narrower limits with N.E. grades.

So, if the plant metallurgist leans to the school of thought which holds that hardenability is also a good index for other physical properties of steel, he is apt to look favorably on the N.E. grades. And beyond that, most metallurgists admit that N.E. grades compare favorably with S.A.E. grades on other important criteria like machineability, distortion in quench, and uniformity of product.

• **Any Kind of Alloy Scrap**—Favoring continued use of N.E. steel is the fact that nearly any kind of alloy-containing scrap can be used to make N.E. steel. No matter what its original alloying

element or elements, alloy scrap can be shoveled into the openhearth or electric furnace and used for at least some kind of a three-way composition embodying nickel, chromium, and molybdenum. In fact, rich-alloy scrap often has had to be diluted with pig iron during the war years in order to reduce alloy content to maximum permissible levels.

Because nickel and molybdenum will not burn out in the openhearth, today's and tomorrow's scrap will contain large quantities of residual alloys—much to the annoyance of those steel-makers who want only a straight carbon steel with easy forming qualities. (And probably 75% of America's steel products are of types that have to be so formed.)

• **Postwar Prospect**—Some estimates are that at least five years of melting and

diluting with pig iron will be necessary to bring content of these alloys down to thin traces. Another observation is that today's scrap content is such that 80% of alloy steel produced shortly after the war will involuntarily fall in the three-alloy class.

That being the case, it is practical to continue to produce tri-alloy N.E. steels after the war and for many years to come. Particularly will this be true if the tendency grows to specify steel on the hardenability basis, when chemical content of a heat means less than physical results of quenching. Mills will be able to melt a batch of heterogeneous scrap, analyze, then add whatever may be necessary to bring it to predetermined hardenability levels.

• **Concessions Asked**—On this basis—or any other—price will be a dominant factor. Steel consumers are already saying that they should have N.E. steels cheaper than old-line alloys, because the mills have the alloying elements handed to them in their scrap. They are quietly edging toward price change requests to correct what they maintain are irregularities in the relationships between N.E. and full-alloy grades.

The N.E. 8600-8700 series, mainstay of the lean alloys, sells for \$13 and \$14 per ton extra above the basic price of openhearth metal. It substitutes for the 4600 series, which is \$24 extra; for 3100, extra \$17; for 5100, extra \$7 and \$9; for 4100, extra \$14 and \$15; and for a few 4000 series steels, costing \$9 extra. Obviously, other considerations being equal, N.E. 8600-8700 would not blanket the field.

The argument that N.E. steels should be produced cheaper, because the alloys come in the scrap, does not entirely apply, either. Although scrap content is fairly well known, the exact specification cannot be known until the heat is melted and a sample taken.

• **Cost Problem**—Occasionally the mill may have to pour a heat, then put it aside in ingots to await an order for that particular specification in a certain size or shape. This holding and remelting would mean extra expense. Frequent off-heats also create a cost problem.

Too, alloy content in scrap is nothing new. Today's estimates are that 50% of the nickel, 40% of the molybdenum, and 30% of the chromium required for alloy steel come in scrap. But before the war scrap residuals furnished only an estimated 25% of alloy needs. Obviously there are arguments on both sides when revision of the price structure is considered.

But whether lower prices for N.E. alloys than for full-alloy specifications eventuate, some revising may develop in the N.E. price structure itself.

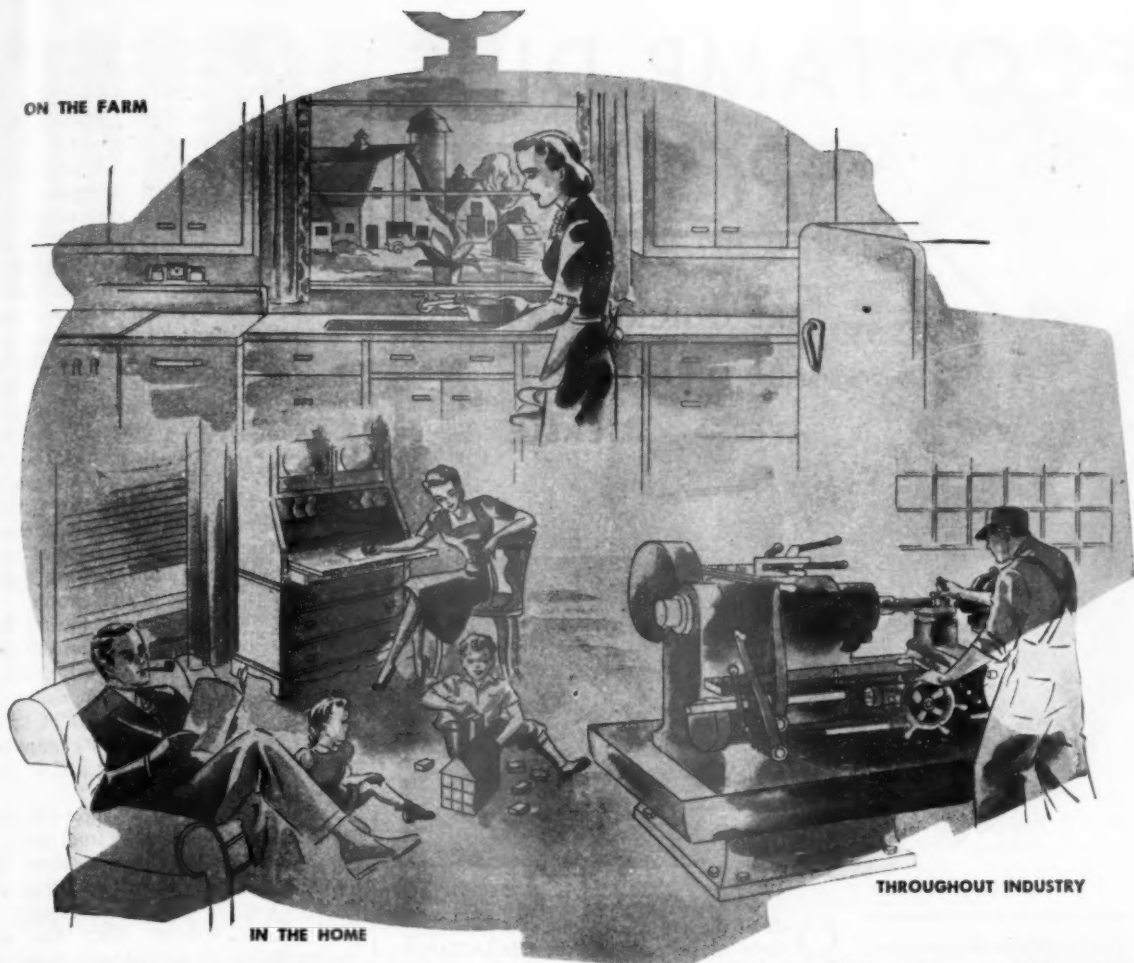
Most N.E. 9400 series steels sell for



## CRUTCH BUSINESS

Lawrence P. Cox (right) demonstrates his new-style aluminum crutch to B. J. Mathis of the Atlanta Textile Machinery Co., which makes it under government subcontract. Mathis holds a broken wooden crutch as a reminder that inspiration for Cox's invention was a wounded veteran whose old-style crutch broke under him. With no armpit rest to impair circulation and distort the body, the tubular cane-like metal crutch is said to train a user to walk naturally after the time comes to discard crutches and cane.

ON THE FARM



IN THE HOME

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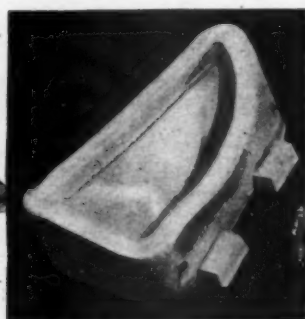
423

**CENTURY ELECTRIC COMPANY**  
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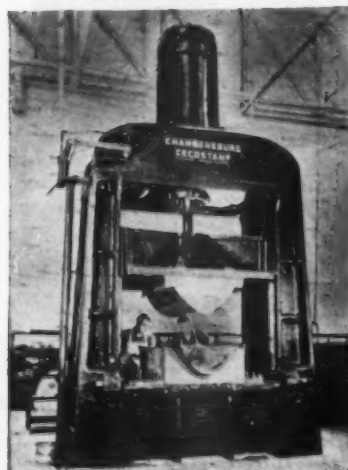
# CECOSTAMP DIES ARE POURED



ARE QUICKLY MADE  
ARE INEXPENSIVE  
ARE SALVAGEABLE



The CECOSTAMP was designed by Chambersburg Engineering Company to solve the immediate and urgent sheet metal production problems of the aircraft industry. The need was for a machine that would form the high tensile, resilient sheet metal parts of stainless steel and aluminum alloys, without drawing, wrinkling or reduction of section. Its success in the aircraft industry makes its application to general sheet metal production most attractive.



ONE of the great advantages of producing sheet metal parts on the CECOSTAMP is the simplicity of the die methods: Dies can be made quickly, easily and inexpensively of lead, zinc, Kirksite or similar metals that can be poured in sand molds made with plaster of paris patterns, as shown in the photographs above. When the run is completed or the part changed, the dies can be melted and used again. As a matter of fact, CECOSTAMP die materials range from regular die steels to asbestos board and include cast iron and the relatively soft non-ferrous materials mentioned above. Simple sheet metal forms have been and are being produced on plywood dies.

Yet the die situation is only one of the many attractive features of the CECOSTAMP. This high production, impact-type drop stamp was designed by Chambersburg to form high-strength, resilient, hard-to-form alloy sheets with true-to-die accuracy and without drawing or reduction of section. From an operating standpoint, the CECOSTAMP is distinguished by ease of control. With a slight pressure on the "featherweight" lever, the operator can move the ram and its die as rapidly and with as much impact as the work requires. Production is rapid and controlled.

Full information on this remarkable machine will be sent on request.

Chambersburg Engineering Company  
Chambersburg Pennsylvania

## CECOSTAMP

\$15 per ton extra over basic open-hearth, and their proportion of contained alloy runs from 0.68% to 1.25%. But the 8600 series contains 0.95% to 1.55% in alloy, yet it sells for only \$13 per ton extra, because of the very slightly enlarged manganese content in the 9400's. As long as that condition prevails little 9400 will be used out of free choice, because its performance does not justify the higher price.

• **Auto Men Eye N.E.**—As for other N.E. series, most of them came into volume availability too late in the war to be thoroughly tested, and so their chances for postwar survival are glimmering. Some experts feel nevertheless that a good chance may exist for N.E. series 9900, priced lower than the rich-alloy 4300 and 4800 steels it has occasionally supplanted. But prices on series 9800, higher than those of steels it was designed to replace, work against the survival chances of that group.

The bulk of the drift toward low-alloy substitutes has been in the cost-conscious automobile industry, whose engineering and production executives see in N.E. steel the means of saving money (provided prices are adjusted) and simultaneously getting just as good a product.

As a result, steel and alloy company salesmen, having seen Detroit swing in the past from full to lean alloys and back again, are looking up other avenues of use for high alloys to keep up their dollar volume after the war. Railroads are an exceedingly promising field of survey at this time.

• **Molybdenum to Gain**—Regardless of outlets, alloy steel specifying—and any juggling of it—involves major quantities of materials. This makes the development of trends on N.E. steels of intense interest not only to the steel mills, but also to those mining and smelting and fabricating companies that supply the alloys.

Over the broad picture, molybdenum stands to gain by substitution of N.E. grades. Its use in prewar full alloys was definitely small; even in the 4000 molybdenum series alloy steels its proportion was no more than 0.30%. But in the N.E. grades it appears in about half of the specifications up to 0.30%, and in a range from 0.15% to 0.25% in most of the others.

This heartens such companies as Climax Molybdenum Co. and Molybdenum Corp. of America, two of the major producers. Any change to N.E. steels will benefit their total tonnage; and a complete return to prewar grades will leave them at least as well off as they were before the war.

• **Nickel May Lose**—Nickel is different. Nickel was the major alloying element in prewar steels; its use ran from a mini-

# DUREZ

## PHENOLIC RESINS

MOLDING COMPOUNDS

INDUSTRIAL RESINS

OIL SOLUBLE RESINS

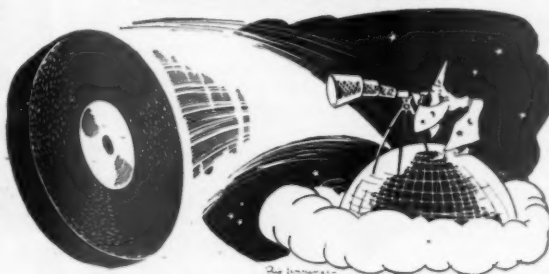
### MOLDING COMPOUNDS



#### THRIVING ON A DIET OF "LIGHTNING BOLTS"

The rigid requirements for arc resistance, dielectric strength, and heat resistance which the modern distributor cap must pass call for a plastic compound of unusual versatility. Naturally, this means that the automotive distributor cap manufacturer looks to the phenolics because these are the most versatile of all plastics . . . and when he looks to the phenolics he looks to Durez—specialists in this field for the past quarter century. In addition to the electrical and heat resistant properties which a plastic compound for a distributor cap must have, the Durez phenolic molding compound selected for this job possesses such characteristics as good moldability, moisture resistance, and low shrinkage. You will find the versatility of the more than 300 Durez phenolic molding compounds is the natural starting point for selecting a plastic material that fits your job.

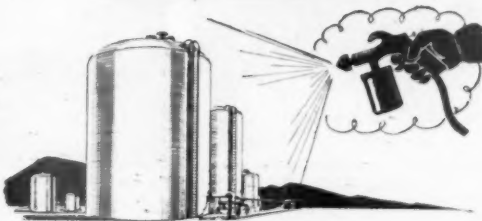
### INDUSTRIAL RESINS



#### LOOKS LIKE A LONG HARD GRIND AHEAD

Grinding wheels bonded with Durez resin possess the durability, strength, and accurate grinding power so necessary for efficient production. Relatively simple to produce, Durez-resin-bonded grinding wheels are typical of the many—almost limitless—applications which Durez bonding resins have made available to the progressive manufacturer with an eye on post-victory markets.

### OIL SOLUBLE RESINS



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Durez resins impart to aluminum paints the brilliance, gloss, and durability that make them amazing life prolongers for such items as petroleum storage tanks. A myriad of wartime developed (and proved) applications for Durez resins in the protective coatings field opens new horizons for the alert manufacturer.

● Versatility is a much misused word and, especially when referring to the properties of plastics, deserves elaboration. When we say that Durez phenolic resins and molding compounds are versatile, we mean that they possess a wide range of highly desirable properties such as highest dimensional stability under all types of climatic conditions, chemical resistance, impact strength, heat resistance, diversity of finishes, dielectric strength, and mois-

ture resistance. But there is even more to it than this—for when you add to the product versatility of Durez plastics the many new molding methods and processes developed by your custom molder and the tremendous advances made with Durez resins in the impregnating, bonding, and coating field, you can readily understand the tremendous scope that is now available

to the imaginative design engineer. The benefits which the wide experience of Durez technicians and the wealth of data available in our files can offer are available at all times towards the successful solution of any plastic material problem which you may have. Durez Plastics & Chemicals, Inc., 246A Walck Road, North Tonawanda, N. Y.

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mum 1.10% to as much as 5.25% in special series. In the N.E. grades its use is held between 0.30% and 0.70% in the most popular grades, while it reaches above 1% only in the 9800 and 9900 series.

While this is not welcome to International Nickel Co., neither does it appear to disturb that producer greatly. Its technicians are spending time developing and exploring new uses rather than mourning old ones which, as a matter of fact, are not yet truly lost.

Stainless steel (including corrosion-resistant applications for superhigh-octane gasoline plants) and high heat-resistant steel (for gas turbines and jet propulsion) use nickel and other alloying elements greedily. (Stainless steels are special types of alloy, are not involved in the S.A.E.-N.E. steel problem.) Inco people feel that these outlets, among others, will widen enough after the war to take up any slack caused by a swing away from the rich alloys.

As for chromium, its position does not seem to change greatly in either a rich-alloy or an N.E. world of steel use. Tonnage going into alloy steel seems to have held at about the same proportion during the war as before it. Among the major producers of this element are Union Carbide & Carbon Co., Vanadium Corp. of America, Pittsburgh Metallurgical Co., Inc., and Ohio Ferro Alloys Corp.

• **Tonnage Figures**—Case studies involving substitution of N.E. grades for full-alloy S.A.E. grades of steel, while interesting, probably are not as significant as industry statistics on tonnages of alloy steels produced by classes. Prepared by the American Iron & Steel Institute, these are available only for 1943.

In that year nickel use in the 11,064,232 tons of alloy steel whose specifications can be deduced totaled 79,548 tons. Chromium totaled 57,188 tons, and molybdenum, 17,359 tons. Percentage-wise, nickel represented 0.72% of this tonnage, chromium, 0.52%, and molybdenum, 0.16%.

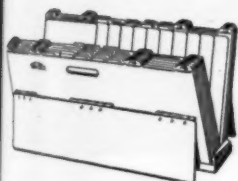
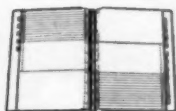
The 1944 figures have not been completed as yet. But trade sources estimate that last year saw nickel improve its relative proportion somewhat, chromium gain slightly, and molybdenum decline about as slightly.

Prewar figures were not recorded, so wartime tonnage trends cannot be positively established. However, some clew to the use of prewar alloying elements is contained in the 1943 figures themselves. Of these, 2,009,112 tons were N.E. steels, in which nickel was present in an estimated average proportion of 0.55%, chromium, 0.50%, and molybdenum, 0.20%.

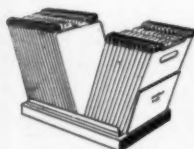
Of the balance of 9,055,120 analyz-

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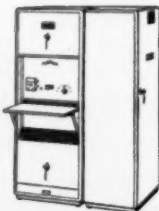


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able tons, nickel's average proportion was 0.76%, chromium, 0.52%, and molybdenum, 0.15%.

• **Depends on Chemistry**—Naturally, no hard-and-fast conclusions can be drawn from this comparison. The quantities of alloying elements taken into steels, whether N.E. grades or rich alloys, depend on the chemistry specified.

For example, the N.E. 8600 series uses an average 0.55% of nickel, 0.50% of chromium, and 0.20% of molybdenum. If 8600 continues in postwar use as a substitute for 4600, it would displace a steel containing around 1.80% of nickel and about 0.25% of molybdenum. Suppliers of both these metals would lose tonnage, really importantly in the case of nickel; chromium use would gain.

But if 8600 supplanted 4100, chromium use would suffer while nickel would improve its position, because the latter series contains 0.95% chromium, and 0.20% molybdenum, but no nickel.

• **Intensified Steel**—One other factor which may assume great importance later lies in the murky background of any consideration of postwar alloy steel. This is so-called "needled," or intensified, steel (BW—Jan. 8'44, p14).

Some metallurgists who are enthusiastic about needled steel maintain that a pinch of boron or some other intensifier in the ladle does as much for the fatigue life and other qualities of steel as comparatively huge quantities of alloys. On that basis, the \$5 per ton extra for boron might turn out to be a great bargain for steel users.

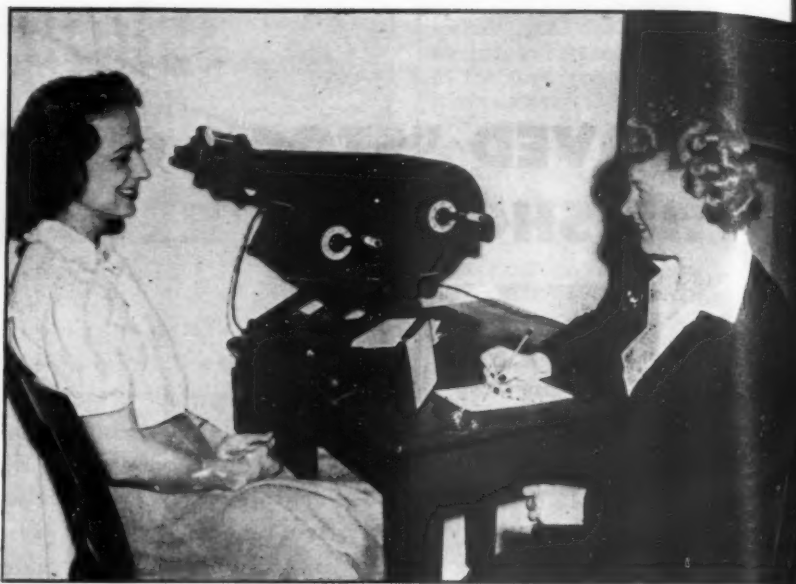
General opinion, however, is that a lengthy research period still lies ahead of any widespread adoption of needled steels beyond the scattering of plants whose technical men have sponsored them so enthusiastically.

## Sponge Iron Dud

WPB writes off war plant in Warren, Ohio, after it fails to hit production stride. Future operation is up to Republic.

Republic Steel Corp.'s sponge iron plant at Warren, Ohio, launched nearly three years ago (BW—Oct. 31'42, p77) in the hope it would help solve the then serious steel scrap shortage, emerged this week as a dud war project. But it still is a little premature to write it off as a possible long-range proposition.

• **No Additional Funds**—Some \$1,132,000 in Defense Plant Corp. funds already have been sunk in the plant, against an original estimate of \$450,000,



## VISUAL SKILLS RATED BY INSTRUMENT

During its recent "open house" at Clinton, Tenn., Magnet Mills revealed its reliance on the Ortho-Rater (above) for testing visual skills of job applicants before placing them on hosiery-knitting jobs. The instrument is built by Bausch & Lomb, Rochester, and is leased, not sold, as part of the Industrial Vision Service now utilized in 30 or more industries. It provides a series of tests and ratings covering acuity of vision in each eye, stereoscopic vision and "fusing" of both eyes for depth perception, eye-muscle control, and so on. Such testing forestalls such obvious misplacements as assigning a color-blind worker to pairing hosiery by hue, and eliminates the possibility of putting farsighted workers on the close work of threading needles in knitting machines.

and operations still are at only 30% of design capacity (100 tons of product per day), whereas it had been hoped to get it running successfully in a matter of six months after release of construction materials.

More DPC money already has been requested to make changes deemed necessary for satisfactory operation. But WPB is going to notify DPC that the Warren plant is no longer classed as a war project. That effectively writes off the project as far as its needs for the war effort are concerned.

• **For Electric Steel**—What Republic will do under these circumstances is a matter now under discussion between its representatives and DPC. But it appears certain Republic wants to continue the plant, for its interest in a sponge iron transcends wartime requirements. Whether Republic would sink its own money in the project is another matter.

(One reason behind Republic's interest is that sponge iron is a good melting stock for use in making electric steel, and Republic during the war has built up its electric steel furnace capacity to 1,715,000 tons, 27.5% of the industry's

total capacity for this special process steel.)

A form of metallic iron produced by direct reduction of iron ore at temperatures far below those required in blast furnaces for smelting, sponge iron has long been a controversial subject in the steel industry. Its utilization depends on its successful competition with pig iron and scrap, for which it is a partial and in some instances superior substitute—if its price is not out of line.

• **Provided Valuable Data**—While the Warren plant has failed as an emergency producer of a substitute for scarce alloy-free scrap, its sponsors assert it has answered some pertinent questions as to possible large-scale commercial production of sponge iron.

It proved, for example, that coke oven gas can be used as a reducing agent (the gas is not burned in the process and is returned to the steel mill for normal heating purposes). It also provided data as to proper metallurgical operation of such plants.

Still to be determined are such important questions as cost per ton of sponge iron and total plant cost.

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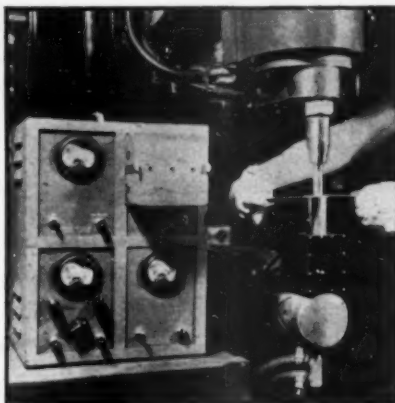


SAVE WASTE PAPER—IT FIGHTS

## NEW PRODUCTS

### Current-Force Recorder

Purpose of the new Portable Current-Force Recorder, developed by the General Electric Co., Special Products Div., Schenectady, N. Y., is to determine and record the current and the amount of forging pressure, or force, used by a resistance welding machine in making production or laboratory welds. The record, which is made automatically on



a strip of photographic paper, shows squeeze time, the duration and magnitude of welding current, the rate and rise of forging pressure, and hold time.

The instrument consists of an amplifier-oscillograph-recording unit housed in a compact case (left) and a boxlike special electrode holder for mounting one of the welding electrodes (right). The latter closely resembles a standard electrode holder, except that resistance-wire strain gages are attached and a shunt for measuring current is built in. The strain gages measure forge pressures while the shunt directs a proportional amount of current from the electrode to operate the oscillograph for the record. Two extra instruments can be added to record the instant of various relay operations in the control circuit of the welding machine.

### Multipurpose Coplant

The characteristic color of Cimcool, the new coolant formulated by the Cincinnati Milling Machine Co., Cincinnati, for a wide variety of machining and grinding operations, is already causing the emulsion to be nicknamed "pink tea" by operatives using it. The basic material consists of two compounds to be added to water. One is dry and granular, called Water Conditioner; the other is a liquid, called Concentrate. Reason for the separation of the two ele-

ments is that a definite amount of conditioner is required for each unit of water regardless of the subsequent degree of dilution with concentrate.

For its friction-reducing qualities, Cimcool is said to rely on chemicals which meet highly active, raw metal surfaces as each chip is created and react with them to form compounds of low shear strength at the chip-tool interface. For its cooling quality, it has ingredients that are said to absorb heat by physical change. Grit and chip fragments are described as falling out of suspension in the emulsion and not being recirculated to mar the finish of work.

Mixing proportions for grinding coolants call for one part of concentrate to 75-100 parts of conditioned water. Proportions for coolants to be used in milling, turning, drilling, sawing, reaming, tapping, hobbing, broaching, and other heavy duty or high finish operations call for one part of concentrate to 10-40 parts of conditioned water.

### THINGS TO COME

Wire recording is not yet mustered out of military service and into civilian use. Yet so fast is the pace of technological development that the talking or singing wire is almost sure to have a post-war competitor in a new multi-channel, steel recording tape. Although the strong, paper-thin recording material will be only  $\frac{1}{8}$ -in. wide, its inventor says the width is ample for as many as 20 parallel recording channels.

He proposes to use an electronic-magnetic process similar to that used in putting music, voice, and sound effects on wire. He foresees wide application for his invention in fields ranging from office dictation and the permanent or temporary recording of radio programs to advertising devices and robot train and plane calling.

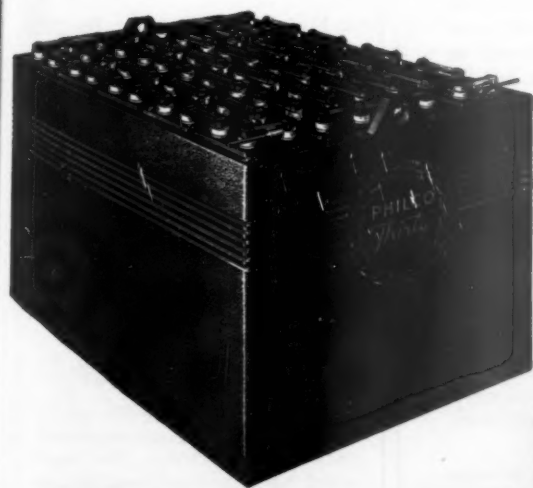
- News reels in full color—not just the usual crop of studio-made fillers and painstakingly photographed travelogs, but moving spot shots of ball games and horse races and disasters—can be expected after the war. New cameras and speedy new methods of developing and printing, devised for and by the military forces, will very probably make news coverage in natural colors practicable.

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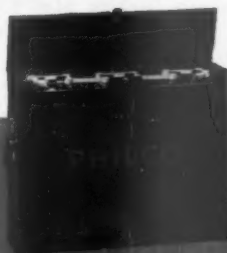
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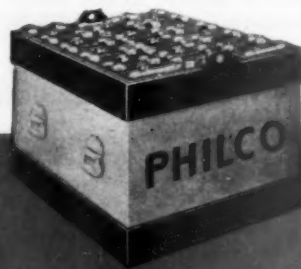


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This photograph clearly shows how ARMCO ZINCGRIP withstands one of the severest tests that can be given zinc-coated steel. The piece is folded and refolded, like a handkerchief. Regular galvanized steel would flake badly at the corner to which pencil points, but the ZINCGRIP coating remains unbroken.

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Just before the war research and production men at Armco found the practical answer to this costly and embarrassing problem. They developed an entirely new way to put a zinc coating on sheet steel and make it stick. The tough zinc

coating on ARMCO ZINCGRIP steel s-t-r-e-t-c-h-e-s with the steel base during extreme drawing and forming operations, doesn't break or peel off. No bare spots are left for corrosion to get a toe-hold. Result: your products look better and last longer.

## SPECIALISTS in Sheet Steel

ARMCO ZINCGRIP is only one of the many *special-purpose* steels developed by Armco. Perhaps you can use one of the Armco special-purpose steels to advantage—now in war-products manufacture or later in your peacetime products. The American Rolling Mill Company, 1821 Curtis Street, Middletown, Ohio.

EXPORT: THE ARMCO INTERNATIONAL CORPORATION

# THE AMERICAN ROLLING MILL COMPANY

Help finish  
the fight —  
with War Bonds



## Special-Purpose Sheet Steels

# WAR BUSINESS CHECKLIST

A digest of new federal regulations affecting priorities, price control, and transportation

## Revocations and Relaxations

Continuing its program of easing production and distribution controls, WPB last week revoked or relaxed restrictions of the following orders:

**CMP Materials**—Direction 6, Priorities Regulation 1, amended to include maintenance, repair, and operating supplies obtained under Direction 25 to CMP Regulation 5 or supplies obtained without priorities assistance in items exempted from the inventory limitations of PR-1.

**Direction 2, Order M-9**, amended to permit WPB authorization purchase of copper raw materials up to a 30-day inventory supply. Order M-9, amended to ease restrictions on certain types of copper scrap.

**Order M-11-b and Direction 1** of the order, restricting the use of zinc, revoked, though present allocation controls will remain in effect.

**Machinery and Equipment**—Order L-65, which limited production of certain types of commercial electric cooking and food preparation equipment and prohibited production of some 50 types of commercial and domestic appliances, revoked. For certain commercial equipment, WPB will grant priorities assistance in the third quarter on the same basis as in the second quarter.

**Order L-300**, covering production and

First as the Defense Business Checklist, an occasional feature beginning in April, 1941, and then as the War Business Checklist, a regular weekly feature after Pearl Harbor, this department has charted the change-over of the national economy from peace to war—the all-out mobilization as it was documented in the thousands of rules and regulations that issued out of Washington. Now many of those regulations have been lifted, and next week with the relaxation of the Controlled Materials Plan (BW—Jun. 23 '45, p. 15), the tight rein of federal production control will be fundamentally loosened. Hence, this department has largely outlived its usefulness and will be discontinued with this issue. Significant, overall changes in Washington policy will, of course, be fully reported and interpreted in regular Business Week articles.

# "World Traveler"



This General American car has traveled the equivalent of ten times around the world—carrying Navy fuel oil safely and speedily. Its record of dependability is equaled by thousands of General American tank cars serving all types of industry. Each GATX car is designed with protective features for specific liquid commodities. Wartime performance of the GATX fleet indicates its peacetime value to you for most efficient transportation of any bulk liquid.

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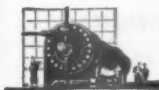
Your company may be developing liquid commodities never shipped in bulk before and difficult to handle. General American will plan with you now the tank cars to carry your products economically.



Builders and Operators of Specialized Railroad Freight Cars



Bulk Liquid Storage Terminals



Process Equipment of All Kinds



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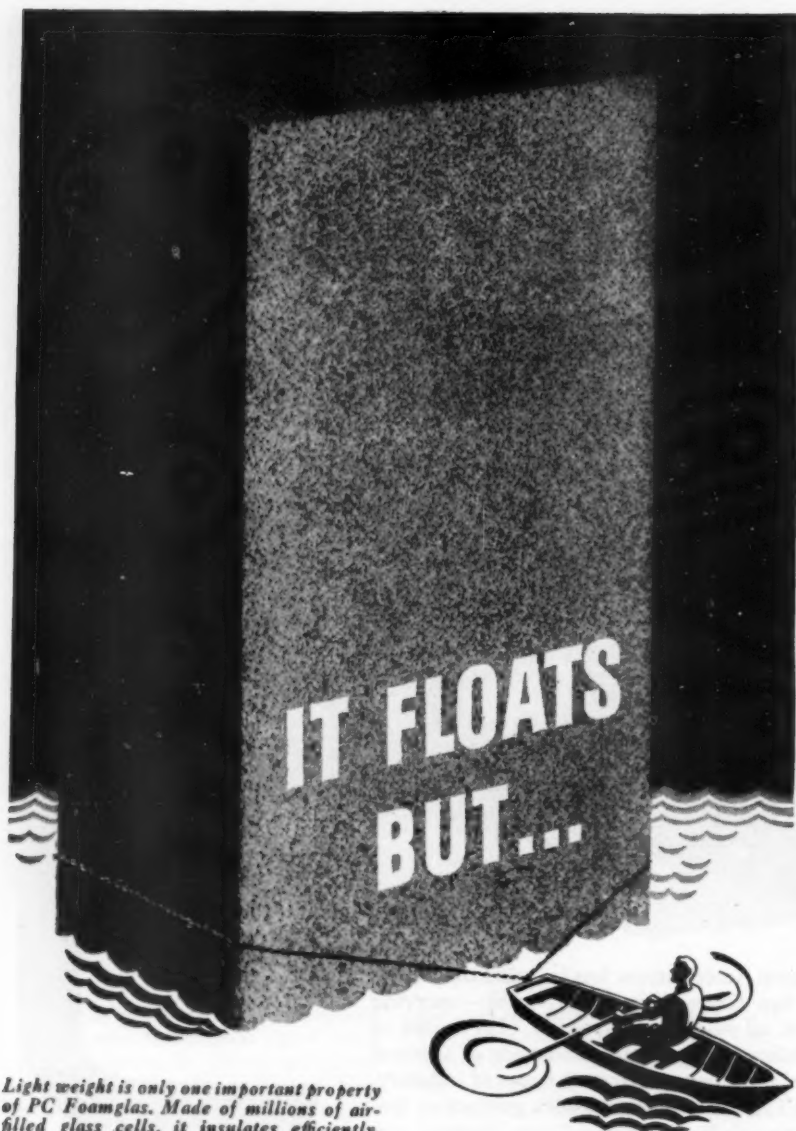


Aerocoach Motor Coaches



Precooling Service for Fruits and Vegetables

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GENERAL  
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CHICAGO



Light weight is only one important property of PC Foamglas. Made of millions of air-filled glass cells, it insulates efficiently, permanently.

• True, PC Foamglas can be used to make life rafts and floats, but it is in much more general use in all sorts of plants, all over the country, helping to maintain temperature and humidity levels, to prevent condensation.

On roofs and equipment, in walls and floors, PC Foamglas, light, rigid, strong, is proof against acid atmospheres, vapors, moisture and fumes.

PC Foamglas will not burn, rot, check, or warp. It retains its original insulating efficiency—permanently.

When you need insulation, get full information on PC Foamglas. This unique material requires no repairs, no replacements, so you get not only top efficiency, but also downright economy.



#### PITTSBURGH CORNING CORPORATION

Room 645, 632 Duquesne Way, Pittsburgh 22, Pa.

• Also makers of PC Glass Blocks •

**PC FOAMGLAS** *Waterproof Fireproof* **INSULATION**

T.M. REG. U.S. PAT. OFF.

distribution of small air circuit breakers, revoked.

**Consumers' Durable Goods**—Order 18-b, which prohibited production of domestic vacuum cleaners, revoked.

Order L-71-a, standardizing hearing-aid batteries, revoked.

**Miscellaneous**—Order M-73, Direction 1, amended to exempt from the wool top cap "freeze" the production and use of wool top containing more than 40% wool of more than 40% adult mohair.

Order M-217, amended to permit manufacture of more women's two-toned leather-soled spectator shoes and to lift the ban on certain types of shoe decoration. Under the same order, manufacturers who have not used their full quotas of men's work shoes may apply to WPB for permission to transfer their quotas to boys' shoes in sizes one to six.

Order M-300, Schedule 4, which controlled anhydrous hydrofluoric acid allocations, revoked.

Order M-328, Direction 2, amended to remove the former freeze action which required circular hosiery knitting machines above 72 needles to produce wool socks only for the armed forces.

### Increased Civilian Supply

Army cutbacks have made lead available for about 3,000,000 additional collapsible tubes for civilian use during the second quarter—an increase of 13% over the number originally permitted. (Direction 2, WPB order M-115.)

• **Gasoline**—Civilian allocations will total 1,404,000 bbl. a day for the third quarter. This includes a regular daily allocation of 1,264,000 bbl. (14,000 bbl. more daily than the 1944 third-quarter allocation) and an additional allotment of 140,000 bbl. a day. The additional allowance covers recently increased "A" and "B" gas rations.

• **Butter**—Civilians will get 7,000,000 lb. more butter in the third quarter than they got in the second quarter. Total War Food Administration allocation is 336,000,000 lb. for the July-September period.

### Decreased Civilian Supply

Because the prospective production of red sour cherries is below average, WFA has required a 100% set-aside of all the hot packed and frozen cherries processed in 1945. The order also limits the commercial processing of red sour cherries to hot packing and freezing and limits the amount which may be frozen. (WFO 133.)

### Tightened Restrictions

To assure essential corn supplies for food mixers and industrial processors, WFA has prohibited the purchase of corn by distillers and exporters after June 15. Corn previously acquired for distilling or exporting may be used only under contracts entered into before June 11.

• **Quinacrine**—With the redeployment of troops, WPB has brought quinacrine once

breakers, under the controls of Schedule III, the chemicals order, M-300.

**Resins**—Coumarone-indene resins, used in special paints, synthetic rubber plastics, adhesives, and electrical insulation, are now subject to Schedule 110, WPB order M-300.

### Regulation Control Changes

A small quantity of odd lot shoes will be released for sale during the three weeks beginning July 9. The lot will include 1,400,000 pairs of men's shoes and 3,100,000 pairs of women's shoes.

### Price Control Changes

OPA increased mill ceiling prices of cast-iron soil pipe and fittings \$5 per ton—a rise of about 74%. The increase is designed to compensate for the 5¢-an-hour wage increase granted to foundry men and for higher raw materials costs. (Amendment 3, Revised Price Schedule 100.) Regulation 110 has been revised to establish new ceilings on re-usable iron and steel products which can be used without further reconditioning.

• **Anthracite**—Following the recent wage agreement in the industry, the Office of Economic Stabilization has announced increases in maximum prices for anthracite of \$1 a ton in domestic sizes and from 25¢ to 50¢ a ton on industrial sizes.

• **Canned Fruits and Vegetables**—In pricing the 1945 pack, canners will be permitted to raise ceiling prices to offset increased costs of raw materials that have been approved by the Office of Economic Stabilization and increased wage costs approved by the National War Labor Board.

• **Wood Rosin**—Price increases for wood rosin ranging from 10¢ to \$1.90 per cwt. have been established by OPA. Increases will be absorbed by industrial buyers. (Amendment 7, Supplementary Regulation 14F to General Max.)

• **Imported Wool Skins and Sheepskins**—OPA has fixed dollar-and-cents ceiling prices for purchases of coarse wool skins and hair sheepskins imported from the Union of South Africa, and hair sheepskins imported from Nigeria, Brazil, and the Red Sea area. The new prices do not affect hair sheepskins from Addis Ababa, Djibouti, and Djed-dah. (Amendment 4, Supplementary Regulation 14E to General Max.; Amendment 102, Revised Supplementary Regulation 1 to General Max.)

• **Puerto Rican Rum**—Importers' sales of "new" rum items—those not sold by an importer in March, 1942—have been given uniform dollar-and-cents ceiling prices by OPA. On items they sold in March, 1942, importers may use either the new prices or those previously authorized.

• **Bananas**—The total price which an importer may pay for imported bananas may not exceed the ceiling price established for importers' sales of bananas in this country. (Amendment 3, Revised Regulation 285.)

## Where crane bridge brake performance counts --

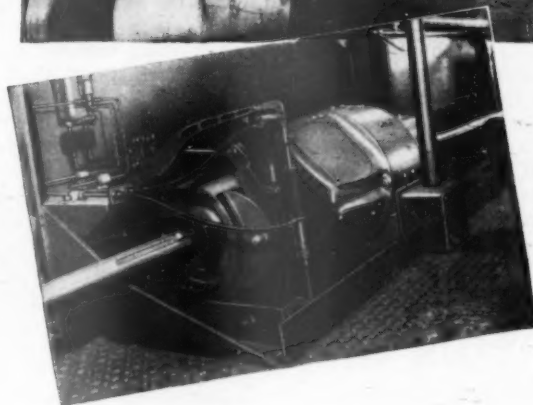


Illustration above shows overhead crane equipped with a Wagner Hydraulic Braking System. Picture at left shows Wagner Type HM hydraulic service and parking brake installed on crane. Note brake control unit mounted on side of crane behind brake.

If it's built by  
**Wagner**  
-- it's dependable

The operator of a crane equipped with a Wagner Hydraulic Braking System knows the Type HM brake provides three factors which assure dependable performance.

The brake provides foot-controlled braking for service stops, spring-set braking for parking, and automatic full-load braking to bring crane to a gradual stop in event of power failure.

An established reputation for dependability also applies to all other Wagner products. The line includes electric motors, transformers, unit substations, brake controls, air brakes, hydraulic brakes, brake lining, and Tachographs (recording speedometers).

If you need any of our products, consult the nearest of Wagner's 29 branch offices, each manned by trained field engineers.

**Wagner Electric Corporation**

ESTABLISHED 1891

6460 Plymouth Avenue, St. Louis 14, Mo., U. S. A.

**ELECTRICAL AND AUTOMOTIVE PRODUCTS**

## A New Trunk Line System?

ICC's decision that Alleghany Corp.'s C. & O. control was legally acquired revives talk of rail empire envisaged by the Van Sweringens and, more recently, by Robert R. Young.

The Van Sweringen brothers, in their day, dreamed of welding the Chesapeake & Ohio and the roads it controls into a unified rail empire rivaling the big eastern trunk line system.

In recent years, the dream has been cherished by Robert R. Young, chairman of Alleghany Corp., although obstacles—particularly the attitude of the Interstate Commerce Commission—seemed to relegate the project more or less to the realm of fantasy.

Now, however, the ICC itself has handed down a decision which takes the dream out of the limbo of the improbable and advances it a long way toward reality.

The ICC decided there had been no illegality in Alleghany Corp.'s acquisition of its present working control of C. & O., which also assures it control of the New York, Chicago & St. Louis, the Pere Marquette, as well as the Wheeling & Lake Erie.

Alleghany, which has been the center of many a financial storm since its organization in 1929 as a top holding company of the Van Sweringen corporate maze, had deliberately sought a showdown on the C. & O. control issue. But the ruling in which ICC disposes of the question did not result from the proceedings instigated by Young for that purpose in early 1944.

Instead the decision was tucked away among other findings in a far less important Alleghany-C. & O. case.

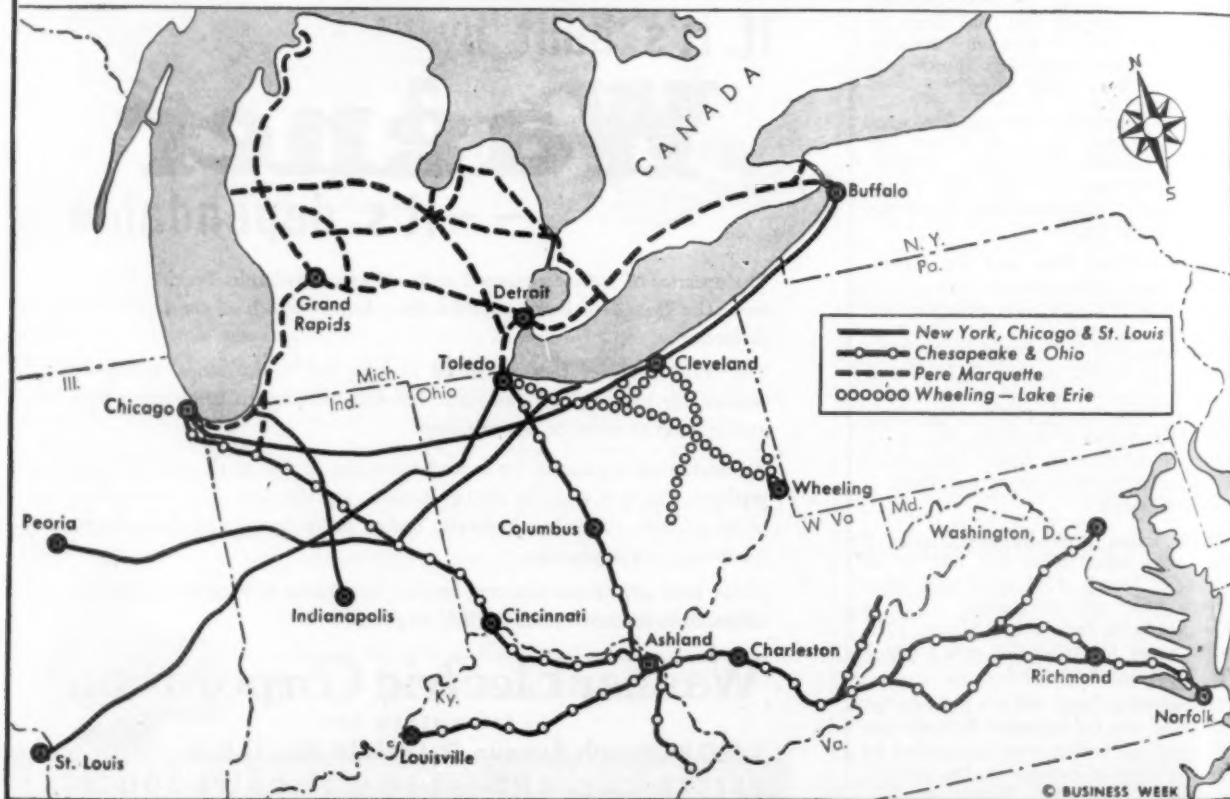
• **Taken by Surprise**—ICC's action came as a surprise to many who had been close followers of the controversy. Likewise, many stock market traders were caught off base. The news quickly touched off active rallies in stocks of the roads involved. Big Board prices of N. Y., C. & St. L. and Pere Marquette preferred and common shares went up by as much as \$7.75 to new eight-year or even all-time highs.

Especially surprising was ICC's apparent reversal of attitude toward Alleghany Corp. Previously, ICC had always appeared to take the position that Alleghany had lost its original control of C. & O. in 1938 (when the trustee of bonds then outstanding claimed an indenture default, impounded the C. & O. stock collateral, and took away Alleghany's right to vote the shares) and then had regained control in 1941-42 without getting the ICC approval required under the Transportation Act of 1940.

• **An Earlier View**—As recently as last Mar. 1, the commission's assistant director of finance, C. E. Boles, speci-

## PATTERN FOR A MERGER

Van Sweringen dream of railroad empire seems to be on way to final realization



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ally recommended that ICC formally  
declare the C. & O. control illegally  
held and require Alleghany to divest it-  
self of such holdings.  
But ICC's final findings were some-  
thing else again. After commenting  
unfavorably on Alleghany's early history,  
the commission spoke highly of the  
"operating efficiency and character of  
public service" achieved by the C. & O.  
family since Young's group had taken  
over Alleghany Corp. Also, it described  
the latter's management as "efficient,  
alert and forward looking."

• **Other Compliments**—These weren't  
the only ICC bouquets. Young and  
his fellow directors were likewise com-  
plimented for opening the financing of  
all "Alleghany roads" to competitive  
bidding (BW—Jun. 23 '45, p70), for in-  
augurating those systems' successful debt  
reduction programs, for cutting the  
number of Van Sweringen-inspired cor-  
porations in the Alleghany chain from  
263 to 59, and for putting Alleghany  
itself back on its feet financially.

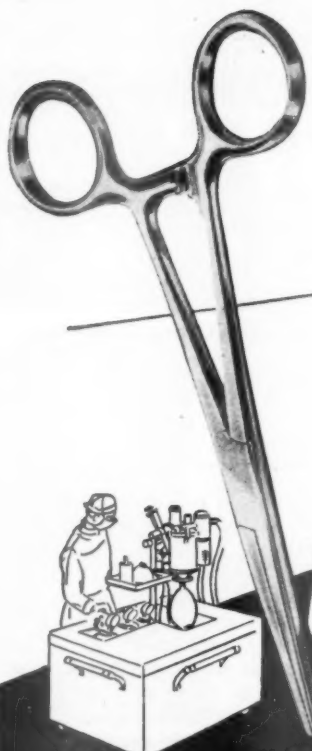
Probably helping the company's case  
was its cooperative attitude during ICC  
proceedings. Alleghany, for example,  
offered no exception to the unfavorable  
Boles report. Instead, it proffered some  
compromise proposals to avoid any ex-  
tended litigation on the subject. And  
the latter actually provided much of  
the basis for the final settlement.

• **Considered as a Carrier**—Under the  
ICC's decision, the Alleghany Corp.  
is to be considered hereafter a car-  
rier, subject to all provisions of the In-  
terstate Commerce Act and answerable  
to ICC for all its future activities.

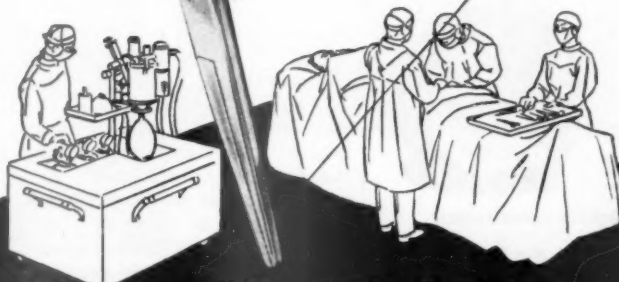
This was the most important of the  
requirements laid down by the ICC.  
None of the others should have any  
 repercussions on the rail systems in-  
volved, and Wall Street rail students  
generally think the decision should give  
impetus to consideration of unifying  
the four systems.

• **No Official Barrier**—No one believes,  
either, that an official O.K. of such  
a new combine would be hard to obtain  
from the ICC. As far back as 1924, in  
fact, a similar Van Sweringen plan was  
found to be in the public interest from  
a transportation viewpoint. It was dis-  
approved finally for financial reasons  
only, and mainly because under the  
Van Sweringens' proposals, their 33%  
control of the individual roads would  
have been expanded into a more-than-  
50% voting control of the new com-  
bine.

Physically, the combination would  
appear a cinch job. Already many traffic  
interchange points are maintained be-  
tween members of the C. & O. family,  
and their importance in the present  
setup may be judged by the fact that  
the New York, Chicago & St. Louis



It happened in  
**SURGERY**



When Carpenter made Stainless  
**EASY TO FABRICATE**

• The swing to *Stainless*  
surgical instruments has not  
alone been due to the fact that  
*Stainless* is the best metal to  
use for the purpose. A lot had to  
do with Carpenter's pioneering  
in making *Stainless* easy to  
fabricate.

To the surgeon, nothing quite  
takes the place of *Stainless* for  
surgical instruments. It's easy to  
clean and keep clean; it resists  
corrosion from humid atmosphere,  
perspiring hands, strong steri-  
lizing solutions; it's strong and  
durable.

Only the production man, how-  
ever, knows the full value of  
Carpenter uniform, easy-working

*Stainless* Steels in licking  
production problems that caused  
so much trouble a few years  
back. Now Carpenter *Stainless*  
forging bars (produced from  
machine-turned billets) make it  
easy to forge surgical clamps  
like that above. And surgical  
scissors and hand instruments  
can be produced on 'round the  
clock schedule.

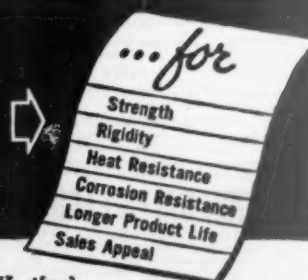
To improve your new or rede-  
signed products at less cost,  
take advantage of Carpenter  
*Stainless* Steels now. Your near-  
by Carpenter representative will  
be glad to apply his *Stainless*  
knowledge to your problems. Call  
him in today or write us at the mill.

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*Carpenter*  
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A brick warehouse was destroyed—BECAUSE—(1) Watchman left premises without permission. (2) He finally turned in alarm, waited a few minutes for the firemen, then went home to get warm, taking the keys of the plant with him.

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Of Southern Ohio Manufacturer

Engineering education or background, executive ability essential. Excellent opportunity now and postwar. Reply in confidence to

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**Exclusive Representations for Argentina**



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MANUFACTURER ELECTRICAL AND INDUSTRIAL EQUIPMENT WITH COMPLETE WORLD sales organization wishes share foreign sales facilities with other companies manufacturing non-competitive equipment suitable same foreign outlets. Objectives: Overhead economy, sales effectiveness, complete line for distributors.  
Foreign Dept., Suite 4400, 70 Pine St., N. Y. 5, N. Y.

## What Alleghany-Family Merger Would Mean

	December 31, 1944		1944	
	Assets		Gross	Net
Chesapeake & Ohio .....	\$814,061,000		\$216,536,000	\$27,341,000
N. Y., Chicago & St. Louis .....	321,647,000		100,458,000	7,226,000
Pere Marquette .....	204,688,000		56,303,000	3,012,000
Wheeling & Lake Erie ....	125,012,000		25,101,000	3,021,000
Total .....	\$1,465,408,000		\$398,398,000	\$40,600,000

### Present Leading Eastern Trunk Lines

Pennsylvania .....	\$2,829,014,000	\$1,010,016,000	\$64,720,000
New York Central .....	2,067,405,000	714,963,000	35,790,000
Baltimore & Ohio .....	1,324,977,000	387,193,000	20,914,000
Erie .....	496,902,000	156,721,000	7,660,000

alone is estimated to secure about 25% of all the loaded cars it handles from affiliates and to turn over to the latter about 8% of its loaded cars.

• **A Mover of Coal**—Obviously, the base of such a consolidation would be the financially impregnable C. & O., which in some past years has handled over its rails as much as 12% of the nation's entire soft coal output.

The other Alleghany roads, however, would also bring into the combination something of value. Pere Marquette, for example, is a natural extension of the C. & O. into Michigan from Toledo. Michigan uses as much as 4,000,000 tons of "C. & O. coal" some years, and Pere Marquette, as in the past, could prove a valuable adjunct in this connection. The motor industry provides the Pere Marquette with much in-and-out traffic other than coal, and because of its Lake Michigan car ferries, the road has always been able to cut in on substantial east-west traffic.

• **Nickel Plate's Contribution**—The New York, Chicago & St. Louis (nicknamed the Nickel Plate because it cost so much to build that some ways insisted its rails must have been nickel-plated) would likewise fit in nicely.

Nickel Plate, for example, would give the new system the second shortest Buffalo-Chicago rail route and, via the Lehigh Valley or Delaware, Lackawanna & Western, the second shortest freight and passenger line between New York and the Windy City. In addition, it would contribute excellent Toledo-St. Louis and Sandusky (Ohio)-Peoria (Ill.) main lines and provide two more important traffic interchange connections with the main western and southwestern roads.

• **Coal and Ore Carrier**—The Wheeling & Lake Erie property, which traverses territory not reached by the others, would likewise be valuable in the consolidation. It connects an important highly industrialized Ohio area with that state's eastern coal region and,

besides being in important soft-coal carrier, is also an important mover of ore to large steel centers.

How the "outside" stockholders would welcome the merger, however, might be a different matter. Their attitude could be an important factor, too, as others than members of the Alleghany family own as much as 51.4% of Pere Marquette's voting stock, 43% of Nickel Plate's common stock and all its preferred, and 32% of the Wheeling & Lake Erie shares.

• **Less Than 8%**—Alleghany's control of C. & O. might not be sufficient to swing such a deal under pressure, either. The remarkably successful debt reduction program, which has cut Alleghany's funded debt from \$79,000,000 to less than \$11,000,000 since 1935, has only been accomplished at the expense of its C. & O. stock holdings. Consequently, according to the ICC, it now owns less than an 8% interest and only exercises control of C. & O. with the support of other stockholders at elections of directors.

C. & O. stockholders, also, are used to regular and liberal dividends (the rate dropped below \$2.50 only once in the 1930's and has lately been \$3.50) and they will want assurance that such treatment will continue. Wheeling & Lake Erie shareholders have similarly done well dividendwise and will doubtless demand recognition of this fact when a merger is actually suggested.

• **A Different Story**—Neither Nickel Plate nor Pere Marquette can boast of such earning records. Actually, no dividends on the former's preferred have been paid since 1931. Pere Marquette, for the first time since 1931, has just resumed such disbursements on the senior of its two preferred issues.

As a result, some adjustment of the \$12,000,000 of back dividends now accrued on the Pere Marquette preferreds and the almost \$29,000,000 due on Nickel Plate's similar shares will probably have to be made if such stock-

# ...Writing checks make you tired?

# MICRO SWITCH

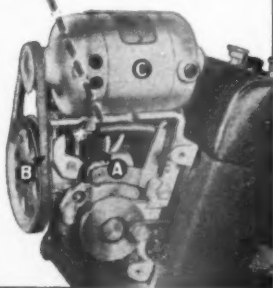
## Snap-Action Makes It a Finger-Tip Job



### HERE IS HOW IT WORKS

... Snap-action switch "A" is actuated when the lever is pulled, causing pivoted lever arm "B" to press against the pin plunger of switch "A," starting motor "C."

At the completion of the cycle, the lever arm releases the pressure on switch "A" and the motor stops. The machine is then ready for another cycle of operations.



**Do You Need a Switch to** control temperatures, help to package products, bottle fluids, record airplane flights, make change, dispense drinks, heat water, control electronic tubes, or steer ships? Micro Switch snap-action switches successfully control many such operations ... and thousands more. Micro Switch engineers, experienced in the application of millions of these precise, snap-action switches to products for both war and peace, will be glad to show you how they can add long life and reliability to your product at lower cost. Write for the Micro Switch Handbook-Catalog today.

When check writing is big business, when checks to be written pile up in stacks, many busy concerns use this Hedman Check Writer to speed the work and ease the strain on their operators.

Electrical control for this finger-tip Check Writer manufactured by the Hedman Company of Chicago, Illinois, is supplied by an accurate and sensitive Micro Switch snap-action switch.

At the movement of a lever, this tiny switch cuts in the motor and starts the complete cycle of operations. When the check is imprinted, the switch automatically shuts off the motor, and the writer is ready for the next check.

Micro Switch products were chosen by the Hedman Company for this important part of their Check Writer because of their precise, accurate repeat operations over many millions of operations, because of the small force and small operating motion required, and because their tiny size and light weight best adapted them to a streamlined design.

Ability of Micro Switch snap-action switches to handle substantial amounts of power at line voltages and the fact that they are supplied with a wide variety of metal housings and actuators make them well suited to almost every type of industrial design.

LET'S ALL BACK THE ATTACK



BUT EXTRA WAR BONDS

© First Industrial Corporation

# MICRO SWITCH

A DIVISION OF FIRST INDUSTRIAL CORPORATION

Freeport, Illinois, U. S. A. Sales Offices in Principal Cities



The basic switch is a thumb-size, feather-light, plastic enclosed, precision, snap-action switch, underwriters' listed and rated at 1200 V. A., at 125 to 460 volts a. c. Capacity on d. c. depends on load characteristics. Accurate reproducibility of performance is maintained over millions of operations. Basic switches of different characteristics are combined with various actuators and metal housings to meet a wide range of requirements.

Basic switches of different characteristics are combined with various actuators and metal housings to meet a wide range of requirements.



## GEORGIA'S *Place* IN THE SUN

Georgia—Empire State of the South—has made exceedingly rapid progress in the past generation. To her vast agricultural production, there have been added in recent years industries of great number and variety.

Largest state east of the Mississippi, Georgia's fertile soils and great store of natural resources hold promise for even wider diversification in agriculture, commerce and industry. Georgia is capable of supporting many times the state's present population. Here indeed is a land of opportunity.

The Seaboard Air Line Railway, a vital factor in Georgia's economic life, believes in the future of the state. The Seaboard is striving with all other Georgians for the attainment of the high-level economy commensurate with the rich resources of this great state.

**Buy More WAR BONDS**

**SEABOARD**

**AIR LINE RAILWAY**

THROUGH THE HEART OF THE SOUTH

*If you want a reprint of this advertisement in full color, write Seaboard Air Line Railway, Norfolk 10, Virginia.*

holders are to look favorably on a merger suggestions of Allegheny Young.

• **War Earnings Help**—Much of the particular problem, however, may have been solved by the time any actual merger steps are taken. Both roads have sharply cut their former heavy fund debt structures by retiring bonds with war earnings and by refunding at a saving of interest.

Pere Marquette fixed charges, for example, are now running at the annual rate of only \$1,840,000 compared with \$3,200,000 in 1942. Nickel Plate's similar load is only \$4,660,000 as against \$7,502,000 in 1936, thus, each would appear in a position henceforth to use earnings to pay off much of the arrears, especially if their postwar year measure up to Wall Street's current general estimates.

• **Optimists**—Followers of Robert Young's career since the group he dominates took over the Van Sweringen unfinished railroad empire in 1937, hock-shop prices aren't losing any sleep over such factors. They feel sure Young will be able to work out a satisfactory plan when the time comes, if he still feels then as he has in the past about merging members of the C. & O. family.

### INSURANCE TAX UPHELD

In a 4-to-3 decision, with potential implications for beneficiaries of life insurance policies all over the country, the Kentucky Court of Appeals ruled this week that the face value of an insurance policy left with the company—to draw interest or on an annuity arrangement—is subject to the state ad valorem tax of one-half of one percent just the same as income-producing stocks and bonds.

Under Kentucky law, the owner of dividend-paying stock must pay an ad valorem tax on the stock itself in addition to income tax on the dividend. Heretofore, the holder of an insurance policy paying cash benefits has paid a tax only on that part of the annual payment classed as income, just as under federal law.

The majority opinion of the court held, however, that the insurance feature of the case at issue ceased on the death of the insured and that therefore the contract resolved into a trust agreement between the beneficiary and the company, as much subject to ad valorem taxation as the face value of a trust estate set up by will.

There is now \$1,750,000,000 of life insurance in effect in Kentucky, an unknown portion of which is potentially affected by the decision. Insurance men fear that other states with ad valorem or personal property taxes may now follow suit.

# The glass that chases shadows...



**M**OVIES are so well photographed today you'd think Hollywood didn't have any problems. But here's a dandy:

In sunlight or intense indoor lighting an object sometimes throws a shadow so black it looks like a hole in the ground! What they do is wash out the shadow with light from a big lamp with a lens like the one shown above in a test at Corning.

Corning makes these lenses in many sizes out of special heat resistant glass that won't crack under the terrific heat of a large lamp, and makes them so accurate that light can be regulated from an intense spot that will chase away a shadow, to a huge flood for a complete stage set.

You'll find Corning lenses of all shapes and varieties today in the far corners of the

world. Along the right of way of our hard-working railroads. On our battleships and supply vessels. Ice-encrusted on submarines in Arctic waters. On fighters and bombers.

And this is only one field in which Corning's knowledge of glass is helping our nation at war. In the conservation of metals Corning has demonstrated that glass can often replace metal and do a better job.

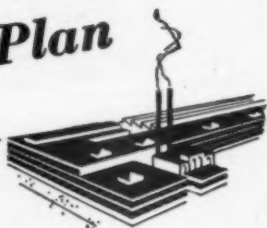
In fact, Corning products demonstrate that glass may be regarded almost as a new material... surprisingly strong, acid and wear-resistant, even flexible under certain conditions. One can foresee a new "age of glass" in which Corning's understanding of this versatile material will enable business to cut costs, increase production, or obtain results not possible

with other materials. We invite you to write about any war problem that glass might solve. And when peacetime plans reach the drawing board stage, we'd like to hear about them, too. Corning Glass Works, Dept. 566-B Corning, N. Y.

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## Issue by Ruppert

Famed brewing concern will offer its stock to public for first time. Estate will cease to hold any of company's shares.

The name of Ruppert, historically identified with beer, baseball, and colorful personality, was appended to a registration statement filed last week with the Securities & Exchange Commission. Closely held since its inception in 1867, the beer-making house of Ruppert was taking the first step toward a public offering of its stock.

• **Son Carried On**—The Jacob Ruppert who founded the brewery that was to perpetuate his name attributed his success to "ambition, steadiness, clear-headedness, and hard work," a formula which seemed to work well in conjunction with the New York public's proved capacity and taste for beer.

Apple of Founder Ruppert's eye was Jacob, Jr., born the same year the brewery was established. Jacob the younger went to Columbia grammar school, passed the entrance examinations for the Columbia School of Mines, but business called elsewhere. He went into his father's brewery, where he rose so rapidly that he became general manager in 1888. Later, he served four terms in Congress (1899-1907).

In 1910, the brewing firm was incorporated as Jacob Ruppert, Inc., but all stock remained in the hands of members of the family.

• **In Beer and Baseball**—It was not as brewer or congressman that Jacob Ruppert, Jr., received his greatest share of the limelight, but as a baseball magnate. He became co-owner of the New York Yankees in 1915, outright owner in 1923. The ball club was more than a business with Ruppert. He fought every play of every game, and according to one of his associates, "Anything under a ten-run lead was a close ball game to him."

From the repeal of prohibition until his death in 1939, Ruppert was active in helping to solve the U. S. brewing industry's problems of readjustment. In 1937 he was instrumental in the adoption of a code by the United Brewers' Industrial Foundation (BW—Nov. 6'39, p.50).

• **Will Retire Debentures**—Stock sales projected in the statement to SEC cover 34,550 shares of \$100 par preferred and 200,000 shares of common. First Boston Corp. and Merrill Lynch, Pierce, Fenner & Beane were designated as the principal underwriters.

Proceeds from the sale of 15,000 of

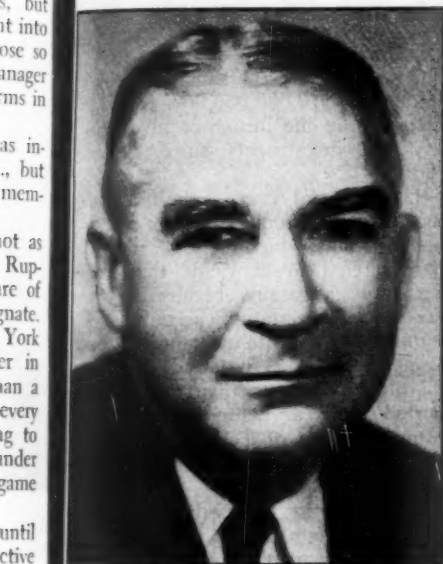
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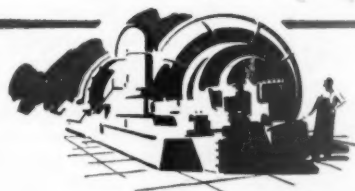


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# 1 FOXBORO

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20'45,p46), has asked state permission to issue \$7,000,000 in serial notes with which to retire the company's preferred stock.

Spokesmen for the committee said 51,962 shares of the preferred stock bear interest at 7% and 22,561 shares pay 6%. A financial institution, described only as "one of the largest in the country," has agreed to lend the \$7,000,000

on 2½% serial notes, offering participation to Omaha banks. The last of the notes would mature Jan. 1, 1948.

To retire the preferred shares will require \$8,197,530. Nebraska Power will pay the difference between the proceeds of the notes and the value of the called shares from its cash assets.

Nebraska Power bonds will be pledged as collateral to secure the notes.

## Lower Yields

Life insurance companies seek new investment sources as income from securities declines. Several turn to housing.

Another decline in the net rate of interest earned on invested policyholder funds was chalked up last year by American life insurance companies. The 1944 earning rate, reports the Institute of Life Insurance, dropped to 3.19%, an all-time low, and slightly under the previous low of 3.29% in 1943.

• **Refunding Blamed**—The main cause of this drop was the continuous flow of insurance funds into low-yielding U. S. government issues.

Almost equally responsible, however, was 1944's wave of corporate refunding operations, since this resulted in the redemption of many securities which could be replaced only by issues offering smaller yields. The ever-lowering rate on open market securities generally was another important factor.

Life insurance company ownership of war bonds and other federal issues, which offer yields of only 2.50% downward, expanded by some \$3,680,000,000 during 1944. This increase brought to almost \$10,000,000,000 the aggregate gain in life insurance investments in such investments since the war started.

• **45% of Total Assets**—Combined holdings of governments and state and municipal bonds, which for some time now have offered lower yields than many Treasury obligations because of their tax-exemption status, accounted for some 45% of all life insurance company assets at the 1944 year-end. This is a sharply higher ratio than the 40% reported the year before and a far cry from the time of Pearl Harbor when holdings of this type accounted for only 25% of total resources.

• **Realty Ratio Drops**—Back in 1900 the earning rate on the life companies' investment portfolios averaged around 4.50%. During the next quarter century it showed only minor year-to-year fluctuations, but the trend disclosed an upward slant and by 1925 had advanced to 5.25%. The early 1930s, however, saw interest rates fall off sharply, and they have declined steadily since.

Of late the average interest return on real estate mortgages, in past years one of the main sources of life insurance company investment income, has been reasonably well maintained. Such investments, however, are no longer as prominent as they once were. Compared with a 20% ratio at the close of 1941, and

## Bull Market: How Long Will It Last?

Bull markets follow Newton's first rule for matter, the law of inertia, continuing in motion until outside forces intervene. Thus the length of the ride is less a factor of momentum than of interference. Tabulation of the eleven major upswings on the New York Stock Exchange since 1900 reveals that only two have been of longer duration than the current rise.

The present bull market, now under financial microscopes, started in April, 1942, more than three years ago. Since then the Dow-Jones industrial stock average has moved up about 81%, or some 75 points, from an earlier level of around 93. Rail stocks have risen even more sharply. That average has increased some 147%, or 35 points, above its previous level around 23.

• **Among the Famous**—The net is that no matter what happens to it subsequently—and some market experts have their fingers crossed now—the still lusty 1942-1947 bull market is bound to rank in Wall Street's book as one of its most famous.

Industrials					Railroads				
	Dow-Jones Index	Gain Points	%	Weeks Lasted		Dow-Jones Index	Gain Points	%	Weeks Lasted
June 1900	53.68				June 1900	72.99			
to					to				
Sep. 1902	67.77	14.09	26.2	117	Sep. 1902	129.36	56.37	77.2	115
to					to				
Nov. 1903	42.15				Sep. 1903	88.80			
to					to				
Jan. 1906	103.00	60.85	144.3	115	Jan. 1906	138.36	49.56	55.8	121
to					to				
Nov. 1907	53.00				Nov. 1907	81.41			
to					to				
Nov. 1909	100.53	47.53	89.7	105	Aug. 1909	134.46	53.05	65.2	90
to					to				
July 1910	73.62				July 1910	105.59			
to					to				
Sep. 1912	94.15	20.53	27.9	114	Oct. 1912	124.35	18.76	17.8	114
to					to				
Dec. 1914	53.17				Dec. 1914	87.40			
to					to				
Nov. 1916	110.15	56.98	107.2	100	Oct. 1916	112.28	24.88	28.4	93
to					to				
Dec. 1917	65.95				Dec. 1917	70.75			
to					to				
Nov. 1919	119.62	53.67	81.4	98	Oct. 1919	82.48	11.73	16.6	94
to					to				
Aug. 1921	63.90				June 1921	65.52			
to					to				
Oct. 1922	103.43	39.53	61.9	59	Sep. 1922	93.99	28.47	43.5	64
to					to				
July 1923	86.91				Aug. 1923	76.78			
to					to				
Sep. 1929	381.17	294.26	338.6	318	Sep. 1929	189.11	112.33	146.3	317
to					to				
July 1932	41.22				July 1932	13.23			
to					to				
Mar. 1937	194.40	153.18	371.6	243	Mar. 1937	64.46	51.23	387.2	244
to					to				
Mar. 1938	98.95				Mar. 1938	19.00			
to					to				
Nov. 1938	158.41	59.46	60.1	32	Jan. 1939	34.33	15.33	80.7	40
to					to				
Apr. 1939	121.44				Apr. 1939	24.14			
to					to				
Sep. 1939	155.92	34.48	28.4	22	Sep. 1939	35.90	11.76	48.7	25

Despite the huge subsequent rise in re-  
sources, at the 1944 year-end invest-  
ments in this category were only 16%  
of total assets.

Before the war ends, according to  
the estimates of many insurance authori-  
ties, 50% of all the life companies' re-  
sources will have been invested in federal  
bonds; this group expects no rapid in-  
crease after the war in the returns of-  
fered by high-grade corporate obliga-  
tions.

According to James A. Fulton, presi-  
dent of the Home Life Insurance Co.  
of New York and current head of the  
Life Insurance Assn. of America, life  
companies are facing a real postwar  
problem in channeling the investment  
of their funds to the best advantage.

**Emphasis on Housing**—Because of  
this outlook the industry has been re-  
examining the whole subject of insur-  
ance investments and exploring possible  
new outlets through which surplus cash  
can be put to work to provide the earn-  
ings needed to protect policyholders.

Particular emphasis is being placed  
on new housing projects. A number of  
companies for several years have taken  
successful steps in that direction. Last  
fall (BW—Sep. 23 '44, p. 64) it appeared  
that Metropolitan Life Insurance Co.,  
through its growing interest in that  
field, might soon become the world's  
largest apartment house operator (not  
counting governmental agencies) as well  
as the world's largest life insurance com-  
pany.

Corporate preferred stocks also are be-  
ing considered, although there are some  
drawbacks. Most serious of the objec-  
tions concerns the present necessity for  
entering such investments at market  
values on year-end statements even  
though the latter might not represent  
their intrinsic worth.

**New Capital Needs**—Fulton expects  
new enterprises after the war to create  
need for additional capital. But he is  
not so certain whether that need will  
keep pace with the postwar expansion  
of his industry's investable assets as long  
as "the investment of those assets is  
limited to the type which has to date  
been traditional."

Life insurance costs last year re-  
mained about unchanged since the rela-  
tive stability of mortality and the profits  
from sales of securities and real estate  
offset the drop in the earnings rate on  
assets. Such costs, although above  
1930's average, actually aren't much  
above those of 25 years ago.

All in all, therefore, Fulton sees no  
reason to be unduly apprehensive of  
the future. He believes that resumption  
of normal business activity, plus relaxa-  
tion of some of the wartime controls  
now exercised, should have the effect of  
stabilizing investment income.

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## ORGANIZED LABOR

Vol. III of *The Economics of Labor*

By **Harry A. Mills**

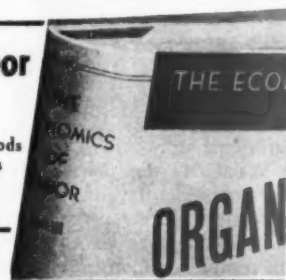
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# MARKETING

## C.U.'s Wedge

**News feature devised by Consumers Union now reaches low-income reader groups via various labor union papers.**

Advertisers who have worried over the years about the product reports issued by Consumers Union now have a new cause for concern, for the C. U. recommendations about buying are gaining circulation through a new and mostly more powerful medium.

• **Syndicated Feature**—That medium is "Your Dollar," a syndicated newspaper feature which Consumers Union, Inc., releases monthly. "Your Dollar" is an abridgment of the three or four reports on consumer products which C. U. deems most interesting in the current issue of "Consumer Reports," its monthly publication. But while the monthly reaches about 70,000 teachers, dentists, lawyers, and others in professional groups, "Your Dollar" has a potential circulation of about 2,000,000 in the 100 papers that use it more or less regularly. Ninety percent of them are labor union papers.

Overlapping of circulation is slight, since not more than 10% of C. U.'s members are also union members who might read "Your Dollar" in their local union paper.

• **What It May Mean**—Hence, while the manufacturer of, say, a nationally advertised baking powder, might shrug his shoulders at an adverse report on his product in Consumer Reports reaching a mere 70,000, he might take quite a different attitude toward a similar report reaching a sizable chunk of the mass market he is trying to cultivate.

More significant is the fact that through "Your Dollar," Consumers Union has gained a wedge, if only a small one, into the workingman's thinking. C. U. admits it has never been able to reach many people in the lower income groups who, it felt, were most in need of its services. Normally such groups include most labor union members.

• **Reasons for Indifference**—Two factors account for this indifference, according to Arthur Kallet, director of C. U. and outstanding consumer movement leader ever since he teamed with Frederick John Schlink to write "100,000,000 Guinea Pigs" (BW—Report to Executives: Apr. 22 '39, p39):

(1) Labor's traditional thinking is in terms of getting a bigger pay envelope, without paying much attention to what that pay envelope will buy.

(2) Many workingmen's families, with neither ready cash nor checkbook in their pockets, were slow to dig up \$4 a year (\$3 in club subscriptions) for Consumer Reports, the annual C. U. Buying Guide, and "Bread and Butter," companion weekly newsheet devoted to current events affecting consumer interests.

• **Educational Project**—"Your Dollar" was devised in 1937 to overcome this obstacle. Consumers Union, a non-profit organization, sought in this way

to give lower income groups some of its ratings of consumer products, without including enough material to make a loss of potential subscribers, its source of revenue. It charges \$1 a year for the service, merely to help weed out publications which do not have some degree of real interest in the material. The rest of the cost is charged off to education.

Kallet claims no credit for "Your Dollar" for the obviously heightened interest in the consumer movement on the part of labor union members. That interest, he points out, stems from higher prices, deteriorating quality, and scarcities of consumer merchandise—factors which have helped make the group increasingly conscious of what their dollar buys, as well as how it is earned.

The affinity between Consumer

## AIR EXPRESS

Mass delivery of package goods by parachute was demonstrated last week at Washington's National Airport to prove the feasibility of extending air freight service to communities without landing facilities. In the demonstration, by Pennsylvania Central Airlines and Switlik Parachute Co., Trenton, N. J., packages containing everything from radio equipment to phonograph records and dishes were disgorged at 200 ft. from a plane doing 130 m.p.h., landed gently (below). Breakage: two small saucers. Heart of the device, designed at the request of the Army Postal Service, is a spring-operated conveyor mounted in the door of the plane (right). It ejects up to six packages when a cockpit trigger is tripped, the chutes opening by static lines attached to the door frame. Hopes for postwar adoption of



the method are high, for direct air freight delivery not only to domestic communities but in isolated sections of Latin America, Alaska, and northern Canada where even surface transportation is almost nonexistent.



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BUSINESS WEEK • June 30, 1997



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CHARGING EQUIPMENT: ELECTRIC PRODUCTS, HERTNER

or territorial rights for a certain designated area."

• **Called Antitrust Detour**—The Dept. of Justice sees this same provision in the bill as implementing noncompetitive division of fields and territories, and the fixing of price differentials for different uses of a product—all in violation of the intent of the antitrust laws. The antitrust lawyers say these devices are not imaginary because they have been used by international cartels.

The majority of trademark experts answer these arguments by saying that the Justice Dept. is "looking for spooks," and is allergic to trademarks or anything else which is "monopolistic," whether beneficial or malignant. The social theorists in the Justice Dept., it is argued, would even rule out the monopoly inherent in the "better mousetrap" legend if the mousetraps were to carry a brand name; that instead, they would prefer to have grade labeling of mousetraps, policed by the Federal Trade Commission.

• **Existing Powers Retained**—Friends of the Lanham bill go on to point out that it does not repeal, impair, or restrict the antitrust or any other laws and that it contains a saving clause that the bill shall not be construed as limiting or restricting the operation of any federal law or agency. As to the argument on generic names, they point to a clause which provides that a mark is deemed to be abandoned when the registrant, through any act of commission or omission, causes it to "lose its significance as an indication of origin."

Evidently not much impressed by the antitrust arguments, the Senate Patents Committee made only minor concessions in no way altering the Justice Dept.'s basic objections to the measure, when it reported the bill for passage last year, but it made another change which proved definitely unpopular. This would have given "any government agency which believes that the public interest will be adversely affected" the specific right to file an opposition or apply for cancellation of any mark, in the same manner as an individual who may claim to be damaged by registration of a conflicting mark.

• **Drug Trade Objects**—Important business interests, notably in the drug field, objected to this change, probably out of a fear that it would give federal agencies, such as the Federal Trade Commission and the Food & Drug Administration, and no doubt the Antitrust Division of the Justice Dept., a handy weapon to attack their trade names in the Patent Office, either before or after registration.

It was argued that such a provision was unnecessary, since registration is not a defense in any action brought under

# MONROE

## SIMPLIFIES TODAY'S PAYROLL PROBLEMS

MARINETTE PAPER COMPANY  
MARINETTE, WISCONSIN

### PAYROLL JOURNAL

WEEK ENDING \_\_\_\_\_

NAME	PICKUP	EARNINGS				ACCUMULATED EARNINGS	PROOF	HOURS WORKED	DOLLARS	CENTS	GROSS PAY	PERIOD ENDING	DEDUCTIONS										CHECK NUMBER	NET PAY		
		REGULAR	OVERTIME	BONUS	COMMISSION								1	2	3	4	5	6	7	8	9	10			11	12
Helen Doe	26804	21.35		1.23	290.610	26804-35					23.570 DEC 494		23-	310-	25-	69-	05-	200-							14996	17.250
George Jones	32552	25.62	41		251.750	32552-42					76.230 DEC 494		36-	550-	25-		05-	200-								170
A. E. Brown	39476	25.62	41		320.830																					230
Mary Smith	3																									90

THIS CARD NUMBER 1983

SOCIAL SECURITY NO. 480-07-8345

### EMPLOYEE'S EARNINGS RECORD

NAME Helen Doe

EARNINGS	OVERTIME	BONUS	ACCUMULATED GROSS EARNINGS	PROOF	HOURS WORKED	DOLLARS	CENTS	GROSS PAY	PERIOD ENDING	DEDUCTIONS										CHECK NUMBER	NET PAY						
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27.050 DEC 494			239.180	21212-25				27.050 DEC 494		27-	310-	25-		05-	200-												
28.590 DEC 494								28.590 DEC 494		28-	310-	25-		05-	200-												

THIS IS A STATEMENT OF YOUR EARNINGS AND DEDUCTIONS. PLEASE EXAMINE AND RETURN TO MARINETTE PAPER COMPANY

PAY TO THE ORDER OF Helen Doe

THE STEVENSON NATIONAL BANK 79-101

HOURS WORKED	BONUS	TOTAL EARNINGS THIS PERIOD	PERIOD ENDING DATE	1	2	3	4	5	6	7	8	9	10	11	12	CHECK NUMBER	NET PAY
35		23.570 DEC 494		23-	310-	25-	69-	05-	200-							14996	17.250

FOR more than thirty years Monroe Calculating Machines have maintained leadership. The mechanical excellence and superior service responsible for this record are built into Monroe Accounting and Listing Machines.

Monroe's unique Payroll Accounting Machine has reached new heights in simplifying and speeding up payroll procedures. The essential records: journal, individual earnings record, and employee's receipt, are produced and proved simultaneously. By a simple turn of program bar this same Monroe is ready for Accounts Receivable or other accounting work—or it may be instantly converted into a straight adding-listing machine.

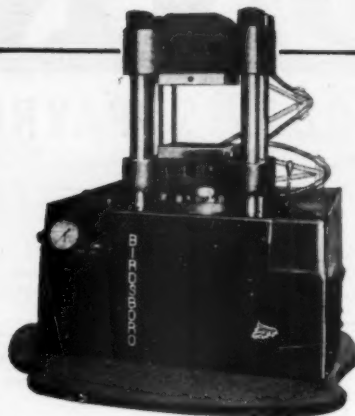
Thanks to simplicity and unusual visibility, the operator can use this machine expertly after a few minutes' instruction—and the "Velvet Touch" keyboard defies fatigue.

Whether your payroll be large or small, let a representative from our nearby branch explain the Monroe Simplified Payroll Plan. Monroe Calculating Machine Company, Inc., Orange, N. J.



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These BIRDSBORO Self-Powered Plastic (Compression) Molding Presses are equipped with built-in Hydraulic systems complete with pumps and controls capable of producing required variable pressures and rates of speeds. This means that plants without existing accumulator facilities can rapidly get into production with these Birdsboro Plastic Compression Molding Presses.

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**HYDRAULIC PLASTIC PRESSES**

another federal law. The provision not included in the present version the bill.

• "Collective" Marks Protected—Innovations proposed by the Lanham bill in addition to those mentioned, provide for registration of "collective" and "certification" marks, such as indicate the geographical origin of a product ("Idaho potatoes"), or denote standards of quality such as the seals of trade, professional, or cooperative organizations.

A separate register would be authorized for "service" marks to identify services rather than merchandise. This register would include "names, symbols, titles, designations, slogans, character names, and distinctive features of radio or other advertising used in commerce."

• Register Expanded—The "supplemental register" established by the trademark act of 1920 would be expanded to include "any trademark, symbol, label, package, configuration of goods, name, word, slogan, phrase, surname, geographical name, numeral, or device or any combination of any of the foregoing, but such mark must be capable of distinguishing the applicant's goods or services."

After a year on the supplemental register a mark could be transferred to the principal register if it meets the full requirements for such registration. After five years on the principal register any mark would become incontestable, and except for cases of prior use in good faith, as provided by the bill, such registration would establish absolute ownership and exclusive rights.

It is said that this will help to eliminate the principal booby trap in the present trademark setup—the "shake down" suits in the Patent Office which flourish because so many of the marks allegedly in use have not been registered.

## HARVARD STUDIES FUEL OIL

Fuel oil distribution is a business of terrific seasonal peaks and valleys. Marketing companies of the Atlantic Coast Oil Conference, Inc., estimate that 60% of their business is done during December, January, and February.

Seeking to uncover new profit sources, preferably in the petroleum field (many companies have tried retail sidelines, such as refrigerator, insulation, and electrical appliance sales, without marked success), the organization of oil marketing firms has enlisted the aid of the Graduate School of Business at Harvard University.

Harvard economists will attempt to evaluate various potential sources of income which might help level off seasonal fluctuations. The hope is to complete the study in 1945.

## Veteran Protected

**Court directs Ford Motor Co. to restore canceled franchise to serviceman, but admits that order won't necessarily stick.**

How rigidly the courts will enforce the civil rights guarantees to servicemen under the Soldiers & Sailors Civil Relief Act of 1940 is a question that has been overhanging the transformation of the business economy to a peacetime basis.

In Boise, Idaho, last week, Judge Chase A. Clark delivered an emphatic answer: Up to the hilt.

• **Franchise Canceled**—The question before Clark in U. S. District Court concerned a Ford dealership, canceled while the owner of the franchise was in service (BW—Dec. 9'44, p. 106). Clark, saluting his opinion with a liberal amount of sentiment for the soldier who is too busy defending his country to protect his interests at home, ordered the franchise restored to Maj. A. E. Stockton of Emmett, Idaho, who was discharged from the Army last October.

The law gives the courts much latitude in deciding how far they can go in relaxing the enforcement of civil penalties for failure to perform an obligation when such dereliction on the part of a serviceman was caused by his prior obligation to help win the war.

• **Doubt Resolved**—Clark admitted serious doubt that the act covers a dealer contract. But, with an eye on Congress' declaration that it intended to "free persons in the military service from harassment and injury in connection with their civil affairs during their terms of service and thus enable them the more successfully to devote their entire energies to the military needs of the nation," he resolved the doubt in Stockton's favor.

• **Cooperation Assured**—Before Stockton voluntarily entered the service in August, 1942, he consulted with Ford representatives and was both congratulated on his decision and assured the cooperation of the Ford Motor Co., the court found. He left two men in charge of his agency, but both were subsequently called to the service.

In January, 1943, Ford asked Stockton to give up his franchise. He refused. Thereupon Ford exercised its option to terminate the contract on 60 days' notice, and the franchise was given to another garage in Emmett. Ford attorneys said Stockton had permitted his inventories to fall too low.

• **Decision Twofold**—Clark's finding was twofold: first, that Ford was not

justified in canceling the contract in view of its assurances of cooperation during his absence from his business; second, that Ford didn't have the legal right (under the act) to terminate the contract while Stockton was in the Army.

The decision is notable more for its emotional quality than for its value as a legal precedent. This is a direct reflection of the law itself and of the broad discretionary powers it vests in the courts. The law virtually leaves it to the court to decide whether the serviceman's civil rights have been violated, and, if so, to explain why. Hence the indication is that defendants in such litigation, unless their case is conclusive, may look for a torrent of strong language from the bench.

• **Promise Held Binding**—"No one," said Clark, "should try to enrich himself at the expense of one who is away offering his life for his country; such action cannot be justified, nor can the defendant [Ford] justify itself—after cheering the plaintiff [Stockton] on his way and assuring him of its cooperation—in entering into negotiations with his competitor to take from the plaintiff his contract and thereby destroy his

business investment while he was in the service.

"Promises made to our servicemen are not to be construed as idle promises but should be construed as a solemn obligation that the agreements we have made with them will be lived up to and enforced."

• **Protection Limited**—Clark acknowledged that if Ford is determined to cancel the contract, in due course after the restoration, there is nothing he can do to prevent it.

## UTILITY SURVEYS NEW YORK

New York City, staunch believer in the phrase "the bigger the better," is fittingly the subject of one of the most comprehensive market analyses ever made of one city.

Consolidated Edison Co., which provides the gas, power, and light for Greater New York, last week released its "Survey of the New York City Market," containing 124 giant-size pages, 63 charts, 83 tables, and 87 maps. The survey presents studies of what the city's 7,000,000 people buy, housing characteristics, rents, dwelling units, and population trends. It was designed to guide



## FOR THE TRAFFIC BATTLE OF MANHATTAN

Bathed in an aura of constant publicity, the versatile jeep rides high on the list of things the public would like when the fighting stops and the selling begins. For Donald Lomax (above) the wish has materialized; he owns a jeep. Lomax, an ex-Marine sergeant, bought the 1942 model while in service, now commutes daily to his job in the mailing department of New York's National City Bank. An expert horseman, Lomax likes his conveyance. His opinion differs sharply from a Manhattan newspaper reporter's. After a 12-mile ride, the latter wrote that the jeep excited public curiosity all along the line, complained bitterly about 463 (by count) bumps, and about a quick turn which nearly tossed him out. He finished his account recommending the subway.

## A DRAWING BOARD IN A *Foundry?*



### *No!* . . . but Acme Aluminum Castings Service does include engineering design

WE don't put our drawing boards right out on the foundry floor. But Acme does offer a design service which has proved helpful to many users of Acme Permanent Mold Aluminum Castings. Acme engineers, through their long experience in making tools and patterns, and in working with aluminum and its alloys, can frequently suggest constructive changes in design. Such a change may, for instance, lead to the use of less metal with no sacrifice in casting strength, and a saving to the customer.

Whether or not you call upon the advisory service of Acme engineers, you will gain the benefit of modern production facilities and quality control in the production of your castings. Acme facilities include pattern and tool shop, as well as one of today's most modernly equipped foundries. Close temperature control and rigid inspection methods guard the quality of every Acme casting.

Submit your castings problems to the Acme organization. You'll find that Acme experience and Acme facilities will help you enjoy higher production rates and lower production costs.

# ACME

*Aluminum Alloys, Inc.*

DAYTON 3, OHIO

New York: F. G. Duffin Co., 111 Broadway

Chicago: Metal Parts and Equipment Co., 2400 W. Madison St.

St. Louis: Metal Parts and Equipment Co., 3615 Olive St.

PATTERNS • TOOLS • ALUMINUM, BRASS, BRONZE CASTINGS • ENGINEERING

postwar planners in plotting location, outlining sales territories, setting quotas, checking sales efforts, allocating advertising expenditures, and helping direct-mail or door-to-door solicitation of consumers.

The company makes no secret of the payoff which it hopes will come from heavier consumption of electric power with more businesses selling as well as using more appliances.

Three-quarters of the basic data for the book come from the 1940 census. What Consolidated has done is to take the Census Bureau's figures, add its own census of retail stores, plus additional data, and put all into an easily usable reference book.

## FM Goes Upstairs

Despite protests, FCC puts it in higher band, obsoleting all present equipment. Television channels are also assigned.

The Federal Communications Commission on Wednesday of this week finally and definitely allocated that portion of the radio spectrum which is to house FM and 6-megacycle television. Despite overwhelming opposition from industry, FM was assigned to the 88-106 megacycle band, with 20 channels earmarked for noncommercial educational FM at 88-92 mc. and commercial FM slated for 70 channels, 92-106 mc.

Facsimile goes into the 106-108-mc. band, with likelihood that eventually it will move higher, at which time the FM band would be extended to 108 mc. Television gets six channels as follows: 44-50 mc. (1 channel); 54-72 mc. (3 channels); 76-88 mc. (2 channels). • **Another Television Band**—In addition to these channels, FCC had previously set aside another broad band, running from 480 mc. to 920 mc. for television. At present, this band is useful only for experimental purposes but ultimately it is expected to accommodate all high-definition services.

At oral argument on June 23, ten of 16 witnesses appearing for FM and television urged that FM be allocated in the 50-68-mc. band, contending that the delay caused by lack of engineering knowledge about operation in the higher frequencies would, in effect, kill FM as a new immediate postwar service. Present FM band is 42-50 mc.

• **Petitioners Disappointed**—Petitions urging the FCC to allocate FM in the 50-68-mc. band had been filed by Television Broadcasters Assn., FM Broadcasters, Inc., Radio Technical Planning Board, Radio Mfrs. Assn., American

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revision Society, eleven pioneer FM  
manufacturers, and the Electronics  
Assn.  
The commission's decision was such  
a shock that it was followed by hints  
a demand for congressional investi-  
gation, with possible impeachment  
charges against the seven-man FCC.  
Walter J. Damm of the (Milwaukee)  
Journal Co., president of F.M.B.I., has  
called his board into special session in  
New York July 10 to discuss the prob-

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FCC's Argument—In defense of its  
decision to kick FM upstairs in the  
spectrum, FCC has argued that such  
move would insure against long dis-  
tance interference. The industry has  
never been inclined to take this engi-  
neering argument too seriously, retorts  
that interference on present wavelengths  
has not been serious.

All existing FM equipment—the  
transmitters as well as the 500,000 pre-  
war receivers—will of course be obso-  
leted by the change which the commis-  
sion has ordered. Receivers can be  
altered to receive the new service, and  
FCC says such converter units can be  
made to sell at about \$10.

## Ads Draw More

War-time advertising gets  
attention while interest in some  
newspaper features lags, sur-  
vey of research group reveals.

Interest has waned in financial, soci-  
ety, and sports news, in sports pictures,  
and in the comics during the war years  
while newspaper readers have been de-  
voting more attention to editorials, edi-  
torial pages, and wartime advertising,  
according to findings of the Advertising  
Research Foundation.

Its current summary of the first 72 in  
the series of the Continuing Studies of  
Newspaper Reading (begun in 1939 un-  
der sponsorship of the American Assn.  
of Advertising Agencies and the Assn.  
of National Advertisers) is another testi-  
monial to the power of advertising.  
Foundation analysis shows that for 96%  
of women readers advertising is of more  
interest than any of the editorial depart-  
ments.

• **War-time Themes Lead**—The founda-  
tion analyzed both national and local  
advertising, highest scores going largely  
to ads carrying a close tie-in with the  
daily problems of war. For example, an  
A. & P. Supermarket ad in the Scrant-  
on (Pa.) Times in March, 1943, got  
the highest readership from women ever  
recorded for a grocery ad—80%. Ob-  
vious cause was the copy—a timely analy-



## *Bearer of Vitamin* **A** *from our molecular stills*

**9,000** units of vitamin A—the amount every pound of  
nutritious fortified margarine carries—need occupy no  
more space than the head of a pin.

Nevertheless, to the processor of margarine, jealously  
watchful of the quality and flavor of his products, that  
tiny quantity must meet certain rigid specifications. It  
must be eminently stable, virtually tasteless and odorless,  
and accurate in potency. Since those are the specifications  
of Distilled Concentrates of Vitamin A Esters\*, they are  
the source of the vitamin A in much of the margarine  
produced and sold today.

The superb Vitamin A Ester Concentrates are endowed  
with these advantages because of our exclusive high-  
vacuum molecular distillation processes. Nevertheless,  
molecular distillation is very definitely not a one-purpose  
process. It is demonstrating more and more usefulness in  
the processing of waxes, oils, and heavy chemicals. It may  
prove to be a revolutionary new tool for you. We invite  
you to write for additional information.

**DISTILLATION PRODUCTS, INC.** *Pioneering High-Vacuum Research*  
755 RIDGE ROAD WEST, ROCHESTER 13, NEW YORK  
*"Headquarters for Oil-Soluble-Vitamins and High Vacuum Equipment"*

\* Protected by U. S. product patent No. 2,205,925 and more than 50 process patents.





## See that factory...

Two years ago, that 17 acre plot was an apricot orchard. Now, it is the Pacific Coast plant of a national manufacturer ... planning to serve the peacetime population of the West ... the nation's fastest growing market.



During the past year, 22 concerns purchased factory sites or established plants in Santa Clara County. Among them were General Electric Company, International Minerals & Chemical Company, Briarwood Pipe Corporation, Harold H. Clapp Inc., and others of like caliber.

These firms located in Santa Clara County because it is the population center of the Pacific Coast ... and closer to all markets. It is an area of decentralized manufacturing—with adequate labor, homes near places of employment and a production record that indicates an efficiency 15% greater than the national average.



Taxes are low in Santa Clara County ... new industrial areas have been provided ... electric power and natural gas are available in practically unlimited quantities ... transportation facilities, by land, sea and air are exceptionally good.

Consider your own peacetime plans. Isn't it time to make your own personal survey of the West Coast market—and Santa Clara County?

### WRITE FOR THIS FREE BOOK

But why not get the facts—all of them! "Post War Pacific Coast"—the story of Santa Clara County, is a 36-page, factual book, which will be sent you without cost. Write on your business letterhead.

DEPT. W

SAN JOSE CHAMBER OF COMMERCE  
SAN JOSE 23, CALIF.



# SANTA CLARA COUNTY

*California*

The population center of the Pacific Coast

sis of the point ration system and orderly layout setting forth the values of the food items that were advertised.

In the national field the Pabst Beer ad, which got top rating in the alcoholic beverage classification is another example. Pabst caught the eye of 43% of the women readers and 37% of the men with a full page ad the Dec. 10, 1942, Dallas (Tex.) Morning News, tying in car pools and rationing.

• **Cartoons Get Readers**—The foundation also took note of the relatively new techniques, such as the cartoon panels used by Wheaties and Land O' Lake Butter, that came in for recognition during the war period. On readership score cards, Wheaties panels have taken the first and second positions at the head of the ten best ads in the national food field.

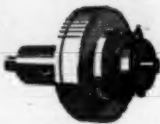
Others on the "best" list for classifications are the Sonoco Dynaflo ad; Eight O'clock Coffee; Chipso soap sale; Inland Empire Electric Equipment Assn. Christmas ad; Johnson & Johnson Red Cross Bandage ad; Bette Davis Errol Flynn for Chesterfield cigarette; Yardley Christmas gifts; and the Southern Railroad.

P. S.

Raytheon Mfg. Co. has been granted two construction permits by the Federal Communications Commission: one for five experimental microwave relay stations between New York and Boston (BW-Mar.24'45,p23), the other for two experimental FM (frequency modulation) stations on top of the Lincoln Bldg. in New York City. ... Columbia Broadcasting System has paid \$950,000 for its San Francisco affiliate KQW, whose application for a boost in its 5,000-watt power was recently turned down without prejudice to future consideration by the FCC, which must now act on the CBS purchase. In the Coast city National Broadcasting Co. already owns 50,000-watt KPO, and American (Blue Network) owns KGO (7,500 w.). ... Servicemen's free editions of three of the Fairchild Publications are in the works: Daily News Record, Women's Wear Daily, and Retailing and Home Furnishing. Editions will deal mainly with trade personalities, will be distributed periodically in the trade and mailed to former industry employees—at the same time creating goodwill for Fairchild. ... Southern Retail Furniture Assn. is campaigning to get power companies to stick to promoting the use of electricity through a dealer cooperative program and to leave the postwar sale of electric household appliances to the furniture dealers.



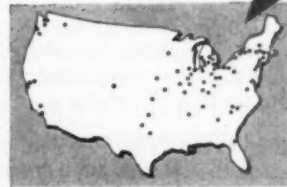
There are  
257 Dodge factory graduate  
Transmissioneers, located  
in principal cities, to show  
you new and better ways  
of transmitting power.



Whenever you have a problem in power application, call a Transmissioneer—your local Dodge distributor. He has the latest answer. His knowledge and specialized experience are backed by a broad line of mechanical power transmission equipment—bearings, sheaves, pulleys, clutches and other drive components. Usually your immediate needs can be supplied from local stock.

DODGE MANUFACTURING CORPORATION, MISHAWAKA, INDIANA

Sign of the Dodge  
Transmissioneer



**DODGE**  
MISHAWAKA

TRANSMISSIONEERED MEANS ADVANCED DESIGN  
IN POWER DRIVES

# LABOR

## New York Ready for Bias Ban

Five-member commission has task of enforcing law against discrimination in employment, effective July 1. Although FEPC is out of the picture, other states show reluctance to act similarly.

Discrimination in employment because of race, creed, or color becomes illegal in New York State on July 1. On that date a five-member commission begins its task of enforcing, under pain of severe penalties, the nation's first state economic equality law (BW—Mar. 10'45,p100). Simultaneously, barring last-minute miracles, the federal Fair Employment Practice Committee will go broke and die, because Congress has failed to provide funds for its continuation into the 1945-46 fiscal year.

Thus emphasis on the fight to end bias will turn—temporarily, at least—from the national to the state level.

• **An Uncharted Path**—In New York, the commission named by Gov. Thomas Dewey will have an uncharted path to hew out. It is charged not only with seeing that employers offer equality for all groups—they may not even state a preference in advertising for new employees—but also with seeing that labor unions cease discriminatory practices. Then, too, the commission is charged with setting up local, regional, and state advisory councils and agencies to foster goodwill, cooperation, and conciliation of disputes among the various groups of the population.

Back of the state antibias committee is authority to go into the state courts whenever necessary for an order commanding compliance with its directives. Failure to comply with the court order will be punishable as a misdemeanor, involving fines up to \$500 or one year in jail, or both.

• **Difficulties Loom**—There is strong likelihood that the commission will face rough times. During protracted public hearings held by legislative committees, foes charged frequently that the law would raise more problems than it would solve. Moreover, it is going into effect at a time when employment cutbacks threaten to dislodge Negro workers who are holding their first industrial jobs; questions and charges of bias can hardly be avoided. The commission will have little time to feel its way; it will have to act bluntly and quickly.

Meanwhile, FEPC—whose activities are limited to firms engaged in or supporting war activities—is fading from

the picture. Even if funds should be made available to keep it going on a hand-to-mouth basis, the large number of companies converting from war to peace production will make FEPC a factor of declining importance in the months ahead (BW—May19'45,p104). Efforts to set up a permanent federal fair employment practice committee have been blocked in Congress.

• **Legislatures Are Hesitant**—Pressure for a permanent body will continue, however, and will be sparked by general failure to make any great headway with New York-type antibias measures in state legislatures. Although at least 21 antidiscrimination bills were introduced during 44 legislative sessions this year, only the New York legislature passed an unqualified antibias bill with sound enforcement possibilities. The New Jersey legislature enacted a law similar to that of New York, but with less compulsion.

Indiana legislators authorized an interim committee to investigate the necessity for an antidiscrimination law,

delaying action until 1947. The same thing happened in Utah.

• **Bills Turned Down**—Pennsylvania turned down job bias legislation. So did New Mexico, Colorado, Illinois, Connecticut, Ohio, and California. Massachusetts tabled a New York-type bill to take up a substitute calling only for further study of the entire question of race bias. Arkansas refused to write enforcement teeth into a statute with an antidiscrimination clause.

In other states, job bias proposals either died without action or are rather hopelessly awaiting consideration in the eight state assemblies that are still in session.

Generally, the situation in state legislatures was the same as that in New York during the Ives-Quinn fair employment bill fight.

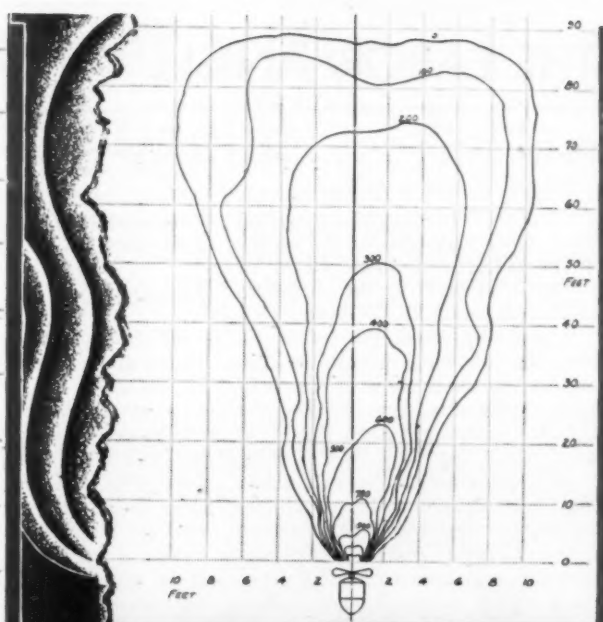
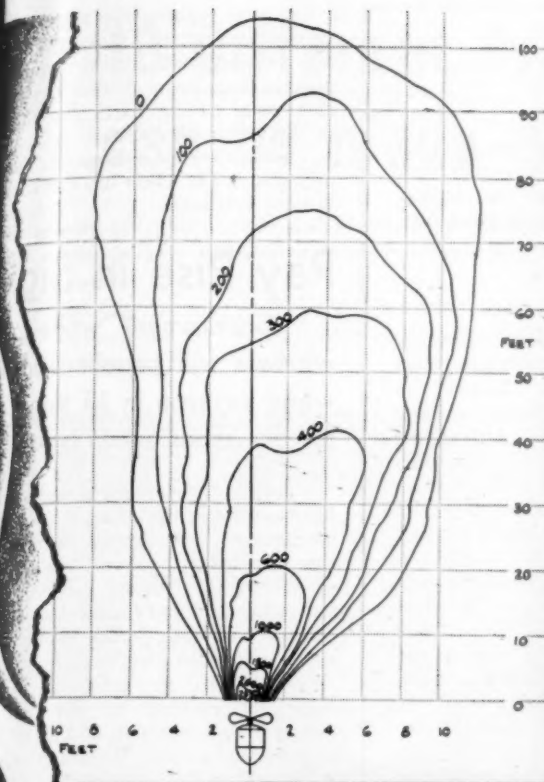
• **Organized Opposition**—Bills in other states encountered similar employer organization opposition, and had the same labor-liberal backing. In several states, including Massachusetts and Pennsylvania, labor—smarting from setbacks—blamed bloc Republican voting.

Interest in antidiscrimination legislation took strange paths in some states. In Ohio an agent for a casualty insurance company asked the state attorney general for a ruling on the possibility of writing a policy designed to protect restaurants, hotels, theaters, etc., against liability for damages based on charges of discrimination. The attorney general flatly and emphatically ruled out the proposed policy.

While discrimination legislation was



Posing with Gov. Thomas E. Dewey, the persons charged with responsibility for enforcing New York State's ban on employment discrimination are: (left to right) Julian K. Reiss of Lake Placid, director of International Tailoring Co.; Mrs. Leopold K. Simon, attorney, member of State Workmen's Compensation Board; Chairman Henry C. Turner, New York City lawyer; Dewey; Elmer A. Carter of the National Assn. for the Advancement of Colored People; Edward W. Edwards, secretary-treasurer of the State Labor Federation.



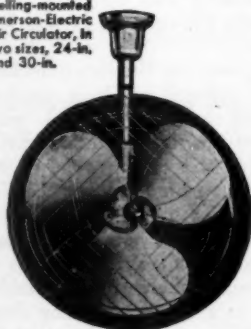
ABOVE... Air-distribution curve of Emerson-Electric 24-in. A.C. and D.C. Air Circulators, operating at high speed.

LEFT... Air-distribution curve of Emerson-Electric 30-in. A.C. and D.C. Air Circulators, operating at high speed.

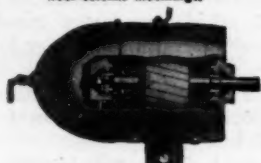
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## 110 FT. LONG --- 20 FT. WIDE!

Ceiling-mounted Emerson-Electric Air Circulator, in two sizes, 24-in. and 30-in.



Also available with wall-bracket, counter-column and floor-column mountings.



6000 HOURS without re-lubrication. Long motor life assured by special thrust-type ball-bearings.

Once again, it's the busy season for Emerson-Electric Air Circulators—thousands will be quietly at work adding another "service stripe" to an already long record of continuous, hot-weather operation.

What they do for you is quickly told in the breezy charts above. Note how the 30-in. size sets up an air path 110 ft. long by 20 ft. wide—the 24-in. size keeps air moving over an area up to 80 ft. long by 19 ft. wide. In each case, the figures on the curves indicate air velocity, in feet per minute, at various distances from the fan in an unobstructed area.

**NEW SUPPLY AVAILABLE...** There are a limited number of new Emerson-Electric Air Circulators available on suitable priorities. See your dealer for details.

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# THE LABOR ANGLE

## Rumor

Despite denials by Philip Murray, a rumor persists in labor circles that he is going to resign the presidency of the C.I.O. and devote all of his attention to directing the steelworkers' union which he also heads.

Those who credit the rumor impute the following reasons to Murray: An intensification of the left-wing, right-wing fight within the C.I.O. is inevitable when the Communist Party line completes its swing back to revolutionary unionism and there are severe headaches in store for anyone who tries to keep these diverse elements pulling together; a period of near-anarchy on the labor front—which is already beginning—as the unions make their bid during the transition period to hold and even raise war-won standards will make the presidency of the C.I.O. a more-than-full-time job; the steelworkers' union, itself in a central position in the coming struggle, will require the undivided attention of leadership of the highest order.

If Murray really does quit, his most likely successor is Allan Haywood, currently head of organization for the C.I.O. and, since the coal miners have left the group, a man without a union. Like Murray, Haywood is a Scot trained in union ways under John L. Lewis' tutelage and his ideas will not differ markedly from those with which the C.I.O. is presently identified.

## Bargain

The determined enforcement of the teamster union (A.F.L.) rule, that no trucks can pull into New York City unless they are manned by card-carrying unionists, is responsible for a notable increase in enrollment in teamster union locals from New Bern, N. C., to Wilmington, Del. Farmer-drivers, part-time truckers, and full-time teamsters who have never joined the union are finding that initiation fees and dues are smaller from Wilmington south than they are in the New York region. A valid membership card in any teamsters' local will get a driver through the New York barricades. A trucker without a card is either signed up at New York prices on the spot or turned back. Northern team-

ster union officers are beefing about "bargain prices," charging that their brethren in the South are swelling local treasuries by undercutting New York dues.

## Finances

C.I.O.'s United Auto Workers Union doesn't have much more than \$2,000,000 in its treasury—an amount which its officials consider dangerously inadequate. Although it boasts a membership of more than 1,000,000, each one of which pays \$1 a month in dues—of which 40¢ goes into the international union treasury—there is no doubt that U.A.W. is much worse off financially than most big labor organizations. This fact becomes of considerable importance as the union plans its role in the free-for-all which is expected to develop on the Detroit labor front.

U.A.W. is relatively hard up because it has always been an over-staffed, inefficiently run organization—the reason for which is politics as much as incompetence. Also the membership could never be induced to vote an increase in its monthly dues. Over the last three months, despite a sustained high level of dues collections, U.A.W.'s assets showed a net drop of \$117,000.

U.A.W.'s financial position may best be appreciated by comparing its assets with those of a union much nearer the labor organization average. Thus, A.F.L.'s International Ladies Garment Workers, with about one quarter the membership of U.A.W., reports, in its latest financial statement, assets on hand of \$7,707,753.

## Correction

The reported withdrawal of a left-wing C.I.O. local from a labor-management committee (BW—Jun. 9'45, p87)—considered a portent of what can be expected when the Communist line changes—occurred not at the Emerson Electric Corp. but at the Emerson Radio & Phonograph Corp. The local union at Emerson Electric, which has repeatedly anathematized communism, is currently expanding the area of cooperation with the company to include a veterans labor-management committee and a joint committee which will be concerned with employee welfare.

a live issue, automobile and fire insurance companies in Ohio scanned the lists of applicants whose requests for policies had been denied during the past year, paying particular attention to the reasons for refusal.

Their concern, however, proved premature: The Ohio bill was killed at least two years.

## Pay Rise in Sight

Government "white-collar" workers will benefit from first wage increase in 15 years, but for thousands action is too late

There is little doubt now that wage increases are in the offing for 1,500,000 government "white-collar" workers—the first federal pay rise in 15 years (BW—May 12'45, p106) may come too late to benefit all of them. Uncle Sam's official family is facing sharp reductions in size in the next six to nine months—with an estimated 20,000 monthly expected to get dismissal papers in Washington, and about 10% of personnel outside Washington to go.

• **750,000 to Be Released**—Total figures on releases issued recently by the Budget Bureau indicate that 750,000 employees may be dropped from the federal payroll in the present pruning. Not all, however, are included in the ranks of the white-collar workers whose raise is awaiting final congressional sanction.

Both House and Senate have voted workers a 15.8% wage increase, but bills passed by the two branches of Congress differed on how much overtime should be paid federal workers—the House said time-and-one-half, the Senate set the payment at time-and-one-twelfth. That difference must be ironed out in conference. The rest is expected to be routine, and speedy.

• **Unions on Alert**—Cutbacks in federal personnel—favored by President Truman as a means of saving about \$400,000,000 annually—have A.F.L. and C.I.O. federal workers' unions concerned. C.I.O.'s United Federal Workers has asked mandatory transfer of employees tabbed for discharge to those agencies still expanding under the Pacific war urgency, and has demanded unemployment compensation for discharged federal employees.

Unions, however, will have relatively little to say about the discharges. Rules of the Civil Service Commission will govern, and while union representatives have been invited to sit in at semi-monthly discussions on government re-conversion to peacetime employment, any participation will be only advisory.

# 10 Different types of prints can be made with Ozalid

You specify the type of print desired—whenever you want reproductions of your engineering drawings, office forms, or other originals.

For some jobs, you may prefer a black-line print to a blue-line or red-line print. Or you may prefer the reproduction on cloth, instead of on paper, foil, or film.

Each type of print has its advantages.

But no matter what type of print you choose, it's made in an OZALID MACHINE in the same manner, in seconds... for OZALID is a unique reproduction process which, besides giving you a 10-1 advantage, greatly simplifies printmaking.

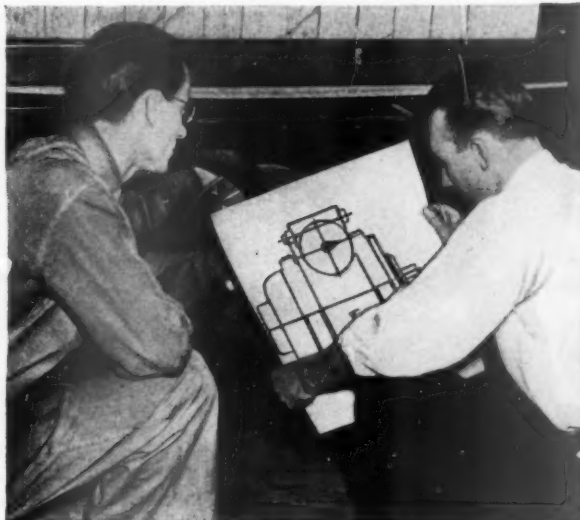


## THE JOB

Sixteen copies of this three page, typewritten report are needed right away.

### The Ozalid Print for the Job

OZALID RAPID BLACK because you'll get prints which you will think were actually typed... and they'll be smudge-proof besides. You can also copy form letters... and type in headings that will exactly match the printed images. In addition, OZALID RAPID BLACK may be used for all-purpose work.



## THE JOB

Part of this design must be changed before production can begin.

### The Ozalid Print for the Job

OZALID TRANSPARENT CLOTH because an extremely durable "intermediate" print is desired. The obsolete lines on the print can be removed with Ozalid Corrector and the new design drawn in. The Transparent Cloth intermediate is then used to produce the desired number of prints for the production line.

## THE 10 TYPES OF OZALID PRINTS

For efficiency in routine jobs • For "impossible" jobs

1. **Black-line**  
For routine prints in drafting room, shop, or office.
2. **Blue-line**
3. **Red-line**
4. **Opaque Cloth**  
For exceptionally durable prints, file copies, etc.
5. **Transblack Intermediate**
6. **Sepia-line Intermediate**
7. **Transparent Cloth**  
For producing "intermediate originals" or to save time and labor when making design changes.
8. **Transparent Foil**  
For making composite prints; reclaiming old, or worn originals.
9. **Chartfilm**  
For producing lustrous, black-line prints on white plastic base—oil proof and waterproof.
10. **Dryphoto**  
For high-quality reproductions of any photographic subject: in black, sepia, or two-tone effect.

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AIR MILES	3 lbs.	5 lbs.	10 lbs.	25 lbs.
250	\$1.04	\$1.25	\$1.57	\$2.43
500	\$1.11	\$1.52	\$2.19	\$4.30
1000	\$1.26	\$2.19	\$2.74	\$6.75
2500	\$1.68	\$4.20	\$6.40	\$21.00



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## Detroit a Hotbed

Strikes multiply, temper rise as jurisdictional row over maintenance work continues. Rift within U.A.W. accentuated.

Strikes spread through Detroit industry this week like a prairie grass fire. At midweek some 50,000 workers in a score of plants were idle in a wave of walkouts. These seemed to have a common root in unrest caused by the jurisdictional row between the A.F.L., Building Trades Council and the C.I.O. United Auto Workers Union (BW—Jun. 23'45, p104) over maintenance work.

The epidemic of tie-ups, which arrived simultaneously with Detroit's first really hot weather, provoked remarks which clearly revealed the overwrought feeling on both sides of the labor-management fence.

• **Scrap of Paper?**—From his basement offices in the Ford Motor Co., Harry H. Bennett, personnel director, declared that recent union actions made it evident that the company contract with the U.A.W. was fast assuming the status of a "scrap of paper." Ford sources said management irritation over recent strike outbursts was so intense that a denunciation of the contract would not be surprising.

Ford's spring and upset and pressed steel buildings were closed last week as a result of the jurisdictional row over maintenance jobs, and the blast furnaces and rolling mills had to shut down this week.

• **Frankenstein's Position**—On the union's side, Vice-President Richard T. Frankenstein stirred up always-smouldering factional differences within the U.A.W. when he said over the radio that union members were being "misled into mobocracy, not guided by union principles of democracy."

Frankenstein, the C.I.O. candidate in Detroit's forthcoming mayoralty election, was promptly challenged by members and officers of rebellious Detroit locals, on the grounds that the "do-nothing" policy of the bloc led by Frankenstein and U.A.W. Secretary George F. Addes, which favors maintenance of the no-strike pledge, had precipitated worker unrest.

• **Deadlock Continues**—Meanwhile, the A.F.L. fight with U.A.W. over reconversion construction jobs, original cause of the current auto labor unrest, remained deadlocked. The temper of the U.A.W. Maintenance, Construction & Powerhouse Workers Council was so stirred up that there was question whether the international could per-

made its members to accept any peace formula short of obvious victory.

A session of the council, called Monday night to hear a settlement proposal of the Dept. of Labor, broke up in disorder after five hours of loud argument. After international representatives left the hall, rump groups took strike votes with varying results. Some belief was expressed that the council was dead as an effective union organism.

**• Packard Shut Down**—The actions of its members, however, were vigorous. Besides the Ford tie-ups, Packard Motor Car Co. was completely shut down by a maintenance workers' walkout, putting some 22,000 production workers off jobs on Rolls-Royce aircraft motors. Budd Wheel Co. was closed by a similar walkout.

Building projects scattered through Detroit stood still while the dispute raged. There was no change in the situation in the original jurisdictional storm center, a number of construction projects at Chrysler Corp. which were closed down a fortnight ago by walkouts of A.F.L. building tradesmen.

**• Not Too Hopeful**—Having been worried for months over the likelihood of reconversion strikes (BW—Mar.10'45, p98), Detroit was not too hopeful for an early cleanup of the situation.

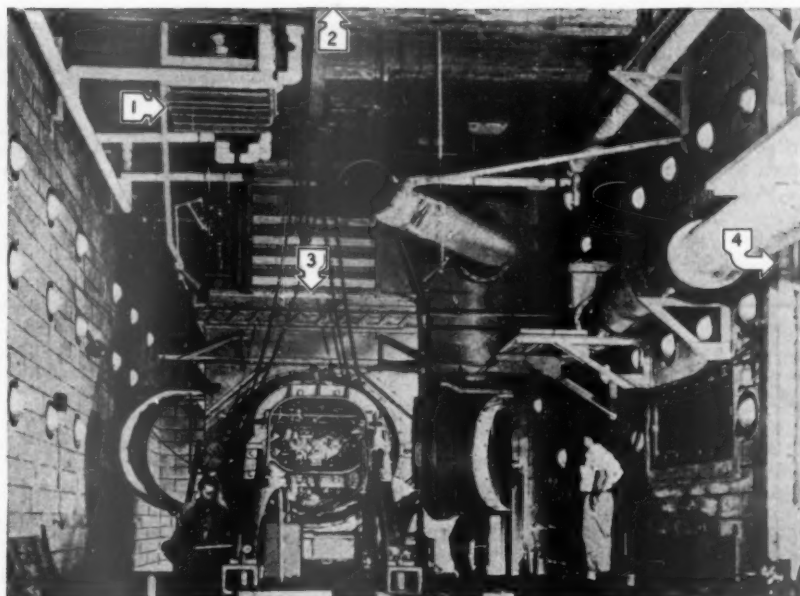
## Crisis in Akron

**Goodyear workers favor government seizure of plants as union and management fail to settle grievances.**

Government seizure of the Goodyear Tire & Rubber Co.'s Akron plants appeared the most likely solution this week of the strike of 16,700 production workers. Despite efforts of the National War Labor Board, members of Local 2, United Rubber Workers of America (C.I.O.), at midweek had refused to return to their jobs.

**• Assert Strike Is Legal**—The attitude of the union, which seeks the settlement of four major grievances (BW—Jun.23 '45,p102), was defiantly displayed before a special session of NWLB at Washington Sunday. After being urged by the board, including labor members Van A. Bittner (C.I.O.) and Elmer Walker (A.F.L.), to end the two-week strike, C. V. Wheeler, union president, bluntly replied that he "couldn't recommend that the people go back to work under present circumstances."

Officers of the union, who were subpoenaed by the board after refusing to appear at a previous hearing, hold firmly to the point that the strike is legal since



## Testing Aviation SUPER FUELS ... with the Aid of Tested Heating and Ventilating Equipment

**T**HE new half-million-dollar Aviation Fuel Testing Unit of the Standard Oil Company (New Jersey) at Bayway, N. J. is the first to be built by any oil company in the United States and is recognized as the finest of its kind. All types of aircraft engines can be tested. They are raced at top speed, complete with propeller, from controls within the adjoining room where the test engineers and attendants are protected by a 16-inch concrete wall, with a 4-inch layer of sound-absorbing tile, and where they watch through a window built of special armored glass.

Of great interest to engineers, aside from the actual testing, are the heating and ventilating of this test cell, where such enormous quantities of air and gases are moved with great rapidity. Three systems are involved:

**HEATING SYSTEM:** During cold weather, while the engine is being set up for testing, a WING Featherweight Unit Heater with a 2-way discharge keeps the room and the attendants at a comfortable temperature.



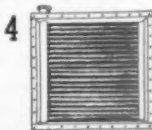
**PURGING AIR SYSTEM:** When a test run is completed and the engine shut down, before the attendants can enter, the gases and fumes must be purged from the room—and quickly.

**A WING Casing Type Axial Flow Fan** mounted in a tower directly over the ceiling brings fresh air from the outside, passes it through the WING Variable Temperature Heating Sections shown just over the airplane engine, and purges and scrubs out all the foul gases and fumes, exhausting through another tower.



**CARBURETOR AIR SYSTEM:** Special air for the carburetor supply is carried in the pipe along the right-hand wall. Exact temperature is controlled by means of WING Heating and Cooling Units mounted in the adjoining room.

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it was called under the procedure of the Connally-Smith act.

Charging NWLB with "bungling" and delays in handling grievances, the union insists that the company resume negotiations on the points at issue before its members will return to work.

• **Workers Favor Seizure**—Actually, sentiment among the union's members seems to favor government seizure, even though Bittner has warned that "your

union will cease to function if the Army takes over." The attitude generally in Akron's three big rubber locals is that little relief is possible from NWLB's time-consuming procedure.

At stake from the union's viewpoint is the pattern on wage rates during the postwar period, as well as the maintenance of current wage levels, which the Bureau of Labor Statistics says are second highest in the country both in

weekly take-home pay and in average hourly earnings.

Complicating the problem, too, is the specter of postwar decentralization from the rubber capital (BW—Feb. 24'45, p19) of a major portion of its tire and tube producing capacity. The end of the war in Europe already has resulted in cutbacks on the government-financed \$70,000,000 expansion program for tire producing facilities, but substantial new

## Strike Wave Continues; New Outbreaks Expected

While Akron and Detroit were focal points for labor unrest this week (pages 99 and 98), strikes occurred in all sections of the nation, taking nearly 100,000 workers away from some jobs in war industry. Scheduled strike votes, including one among 30,000 employees in eight Western Electric Co. plants in New York and New Jersey, added to the tenseness.

• **Looking Ahead**—In Washington, government officials were frankly fearful of what might lie ahead in July, August, and September, when heavy cancellations of war orders are expected. The cutbacks then will mean new reductions in employment, and a new touchiness for job-jealous labor.

Current strike totals were approximately the same as those for John L. Lewis' April walkout of mine workers, when 75,000 stayed out of the pits. There was one major difference: The mine strike in April was the result of a single, central strike call, while current difficulties stemmed from a score of flareups.

• **What Is Involved**—Behind most of these are such issues as the desire of Akron rubber workers to protect their pay envelopes against loss of overtime and reduced pay rates for civilian production, and the demand by Chicago truck drivers that hours be reduced at the same time that a National War Labor Board-approved increase in wages becomes effective.

Broad issues such as those lie behind three major industry-wide strike threats which the nation now is facing: one involving the C.I.O. United Auto Workers (BW—Jun. 23'45, p90) and the others embracing A.F.L. lumber and sawmill workers and C.I.O. woodworkers. • **"Cutback Nerves"**—Many other workers were away from jobs or threatening strikes on issues which seemed trivial in nature. One group struck because their wives, working

in the same plant but on another operation, received more money. Detroit Briggs Manufacturing Co. war workers stayed home because they received no meat in plant meals. Another strike resulted from a plant order barring checker games during the lunch hour. Normally such disputes could be settled easily; due to workers' "cutback nerves" their importance was magnified.

At midweek, Akron and Detroit were the critical spots in the national labor picture. The situation elsewhere:

• **Chicago**—Striking truck drivers (BW—Jun. 23'45, p107) were ordered back to their jobs by the Independent Truck Drivers' Union and the A.F.L. teamsters. Although some of the drivers defied union orders, the eleven-day stoppage by 10,000 drivers was virtually ended. Soldiers aided the Office of Defense Transportation, in operation of 1,700 truck lines seized by ODT. Strike's close found operations nearly normal.

Also in Chicago, 1,100 employees of R. R. Donnelly & Sons Printing Co. remained idle (BW—Mar. 17'45, p100) despite NWLB efforts. Six thousand quit work at International Harvester over piecework schedules. Some 650 employees of the National Malleable & Steel Castings Co. ended a walkout.

• **Columbus, Ohio**—C.I.O. officials are hopeful of an early end to a strike of 17,900 glass workers in six Pittsburgh Plate Glass Co. and four Libbey-Owens-Ford plants in ten states. NWLB ordered the strike ended, and refused to consider the issues—contract renewal and incentive pay—until work is resumed.

• **Jackson, Miss.**—Snarls in transportation ended as 400 bus drivers and mechanics of the Tri-State Co. in eight states called off a walkout.

• **Ashland, Ky.**—Twenty-five hundred C.I.O. steelworkers rejected an NWLB order to end a strike at the

American Rolling Mills Co. plant.

• **New Brunswick, N. J.**—Production in the Mack Mfg. Co. was halted by a strike of 2,500 workers over reconversion cutbacks.

• **Cincinnati**—More than 5,000 employees of the Crosley Corp., members of the A.F.L. electrical workers, announced they were preparing to ask for a strike vote in July.

• **New York**—Five thousand persons were stranded last week end at Orchard Beach, the Bronx, in a slowdown by drivers for the Surface Transportation Co., patterned after the recent New York Omnibus Corp. slowdown (BW—Jun. 23'45, p93). The latter ended late last week in agreement by the two parties to submit their case to arbitration by John Steelman, former head of the U. S. Conciliation Service.

• **Cleveland**—Employees of the Erie Railroad have voted to strike at noon June 30. Before that, the government is expected to step in.

• **Houston, Tex.**—A two-way strike came to an end when members of seven A.F.L. unions returned to jobs at the Brown Shipbuilding Co., acting on orders from NWLB to resume negotiations on a new contract. Truck drivers for the Magnolia Airco Gas Products Co., who struck when oxygen and acetylene were furnished the Brown company despite A.F.L. picketing, also resumed work.

• **St. Louis**—A strike of 2,700 employees of the Anchor Hocking Glass Co. ended, with issues before the NWLB.

Other minor strikes were in progress at Toledo and Marion in Ohio, involving C.I.O. auto workers; at Decatur, Ill., where 500 A.F.L. members interrupted naval shell production in a dispute over maintenance of present wage scales in the reconversion period; and at Elkhart, Ind., where members of the United Construction Workers (Ind.) struck at the Northern Indiana Brass Co.

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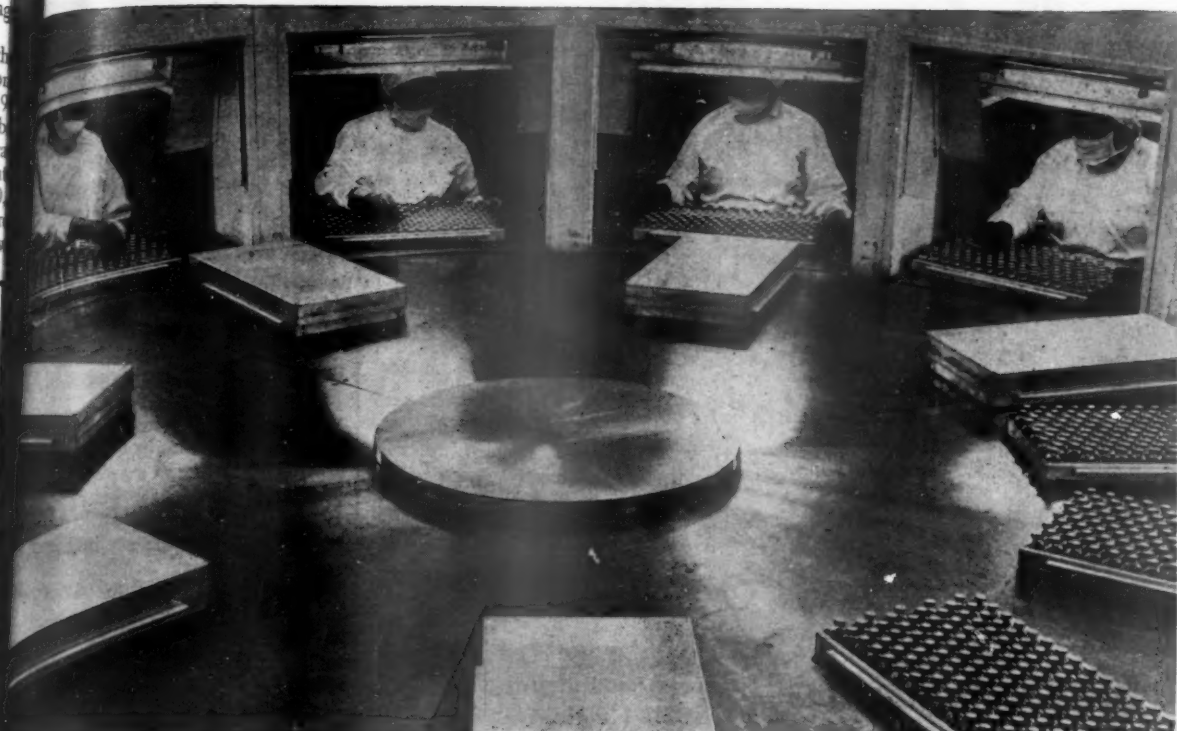
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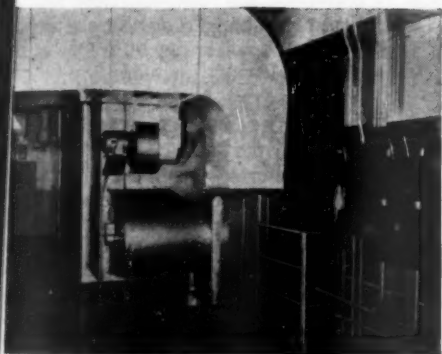
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Thus, Pedrick rings have no high-pressure points to break through the oil film and cause excessive wear and scuffing. They have no low-pressure areas, either, which would permit oil to pass or combustion gases to blow by. The superior performance of Pedrick rings lengthens precious cylinder-block life, saves critical gas and oil, reduces tie-up time, and conserves the time of scarce mechanics.

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**Pedrick**  
*precisioneered* PISTON RINGS

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capacity already is in production every tire produced outside of Akron at the war's end means less of a tire production "ticket" for the rubber company.

• **Payrolls Decline**—Employment in Akron's rubber industry already started downward, although the Manpower Commission estimates fully 3,000 more employees will be needed during the next four months. As of June 1, 68,128 persons were employed in rubber manufacturing in the Akron area compared with 72,204 a year ago in September, 1938, a decline before the start of the European war.

Bulk of the decline during the year has been in the number of workers.

• **Goodrich Agreement Near**—While the likelihood of similar walkouts at the Firestone Tire & Rubber Co., whose production workers voted last week in favor of a strike, and at B. F. Goodrich Co., seemed even to remote this week.

Contract negotiations at Goodrich have reached the signing stage with only three issues unsettled. Those issues which are being referred to NLRB cover certain wage rates, the hiring of outside contractors on work the union contends its members should do, and whether union members should be compensated during work stoppages created by "unusual conditions" not of the company's own making.

The latter issue results from the dispute lost by union members during a walkout in April of many Goodrich foremen, the first display by the Foremen's Assn. of America in the rubber capital. Further headaches may be on the horizon, for the company's foremen have petitioned the National Labor Relations Board for a bargaining unit election with the F.A.A. claiming 90% of the company's 850-odd foremen.

## HIRING HALL DECENTRALIZED

Longshoring operations on the Pacific Coast have been increasing steadily since Pearl Harbor. At that time, the hiring hall of the C.I.O. International Longshoremen's & Warehousemen's Union in San Francisco was dispatching 180 gangs of men to their waterfront jobs, a prerogative which was zealously guarded. Today there are 337 gangs (averaging 17 men each) and the number will increase as the full weight of our military might is brought to bear against Japan.

This week, the tripartite Pacific Coast Maritime Industry Board took a revolutionary step to end the congestion and lost motion of a single union hiring hall. As a wartime emergency measure, and for the duration only, the board set up four longshore gang pools, one each for

duction of Army, Navy, and War Shipping Administration, and the fourth to operate as a reserve out of the union hall. In the past, when a gang has finished assigned job, it has returned to the waiting hall. This not only entailed motion in travel, but also, as the name of Pacific Coast shipping industry, produced a milling confusion in the hall. Now, when a gang assigned the Army has finished a job, it is assigned on the spot by the Army. The reserve pool at the union hall will meet the emergency requirements of all shipping agencies. The Maritime Industry Board is composed of representatives of the I.W.U., management, and the government.

## Equal Pay Asked

N.M.U. says shoreside and ship working conditions must be on same basis. Owners contend further wage hike is impossible.

The problem of seamen's wages—prevented from boiling up before V-E day eased the Atlantic shipping dangers created—was headed this week for the National War Labor Board's war shipping panel. The occasion was a dispute between the National Maritime Union (C.I.O.) and 37 American-flag steamship companies on the Atlantic and Gulf coasts.

**Equal Wages Sought**—Primary issue involved is whether shoreside (land) wages and working conditions will be applied to ship work. Companies say further increases are impossible if the American Merchant Marine is to compete with foreign maritime nations in the postwar period; N.M.U. says job equality must be insured if seamen are expected to fill jobs aboard ship instead of changing to land jobs.

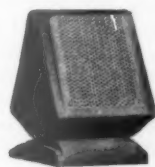
N.M.U. asks: (1) a minimum rate of \$5.40 per hour; (2) a 40-hour week with overtime and one-half on Saturdays and double-time on Sundays and holidays.

**Previous Increase Cited**—Companies argue that this would amount to an 84% increase over present wages, and contend that increases averaging 20% were granted in January, 1941, to bring the wages of an able seaman to \$100 a month on American vessels, as compared with \$56 a month on British, \$54 on French, \$58 on Norwegian. The companies claim seamen receive board and lodging while at sea, at a cost of \$75 a man per month; in port, if board and lodging are not furnished, the seaman receives \$5.20 a day additional.

Behind the present dispute over



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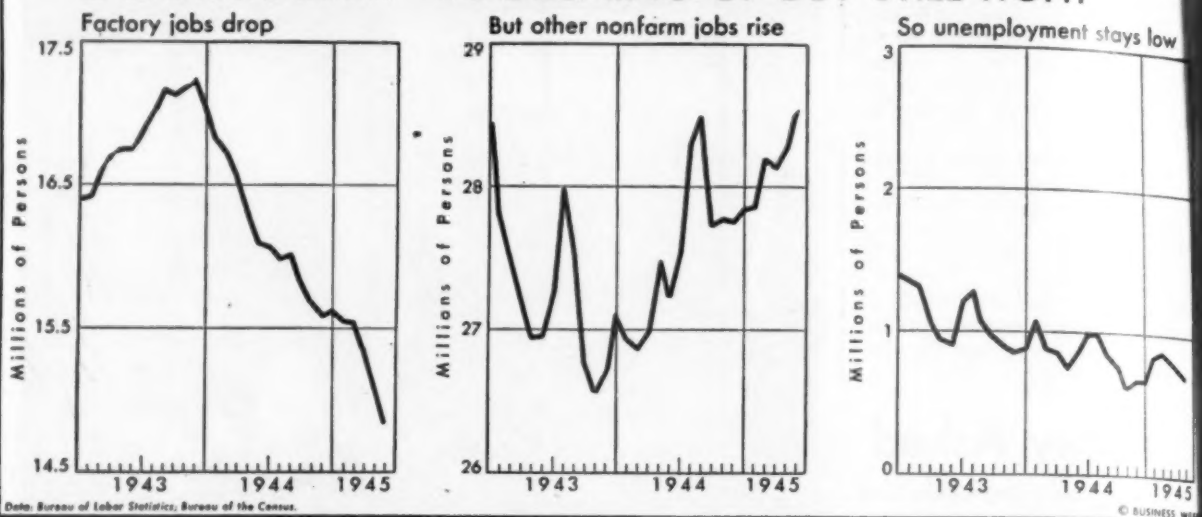
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## LABOR MARKET—LOOSENING UP BUT STILL TIGHT



For many months before V-E Day, factory employment was falling, but trade and service jobs were rising, over and above seasonal ups and downs. So unemployment was holding steady at a minimum. In a measure, these shifts reflected shortage of war manpower; workers were moving toward peacetime lines, but in April, and especially May, war output fell off according to schedule, marking the real start of cutbacks. And even this drop in manufacturing work was quickly taken up by other nonfarm jobs, revealing the great absorptive powers of the

economy. Over-all unemployment remained low, even though claims for jobless benefits went up by 20,000, or 23%. Urban employment outside of factories is still more or less in line with levels prevailing during the labor shortage conditions of late 1942, so trade and service industries can probably cushion a good deal more decline in munitions work. Hence unemployment probably will not rise much over the summer and is apt to stay below 2,000,000 even by the year-end. All this means gradual improvement in labor supply, but no marked easing soon.

wages is a recent order from the Maritime War Emergency Board reducing war risk bonuses to seamen (BW—May 19'45, p104) from the former scale of payments which ranged upward to \$100 a month plus \$5 a day while in especially hazardous waters.

• **Part of Wages**—The MWEB reduced this scale to a maximum of \$80 a month and a minimum of \$40 in Atlantic and Arctic Oceans and the Mediterranean Sea. Complete removal of the bonus was not ordered, the board said, because waters in European ports and adjacent to the European continent will continue to be dangerous until all mines have been cleared.

N.M.U. has regarded bonuses as a part of wages and fought removal. The wage increases now sought would offset eventual ending of the bonus plan and would maintain take-home pay at wartime levels.

### HOUSE ORGAN CUTBACK

When cutbacks hit war plants, company publications are likely to share in the general reductions in operations. Example: The Consolidated News, tabloid for employees of Consolidated Vultee Aircraft Corp.'s San Diego di-

vision, announced this week a cut from eight to four pages in line with production cutbacks.

### SHIPWORKERS GET RAISE

Seven thousand ship repair workers in 14 southern California shipyards under contract with A.F.L. and C.I.O. unions will receive 11.6% pay increases under a National War Labor Board decision which, in effect, equalizes rates paid in southern and northern Pacific shipyards. The order establishes for the 14 yards a differential for repair work, over new construction, already in effect in yards from San Francisco northward.

The award, which climaxes an A.F.L. and C.I.O. fight of four years' duration, clearly breaks the Little Steel wage stabilization formula, for shipbuilders already had won increases amounting to 15% over wages paid Jan. 1, 1941. It can give little hope, however, to most other workers and unions seeking raises. NWLB made clear that it considered the situation unique, and no precedent.

The principle was the same used before by NWLB in rare and unusual cases where formula-breaking raises were considered necessary for the war effort (BW—Jan. 6'45, p100).

### STORE RULED INTERSTATE

Retail stores may be engaged in interstate commerce, within the meaning of the National Labor Relations Act, even though their volume of sales outside the state is infinitesimal, the National Labor Relations Board has ruled in directing a collective bargaining agency election among selling and nonselling employees of a California store.

When a dispute developed between A.F.L. retail clerks—represented by the National Labor Bureau—and Hale Bros. Stores, Inc., at San Jose, Calif., management argued that NLRB could not step in because its store was a local business and not bound by the act.

NLRB rejected this argument in a policy-setting decision which held that a store's purchasing—as well as selling—must be considered in determining whether it is in interstate commerce.

The San Jose store, according to NLRB, received its merchandise from general Hale Bros. purchasing offices in New York and St. Louis. About 70% of all purchases of stock were made outside California. Hence, said NLRB, any interruption in the store's business would affect interstate commerce moving into California.

# THE WAR AND BUSINESS ABROAD

BUSINESS WEEK

ME 30, 1945



It is time for responsible executives to review and evaluate a few basic facts about the Far East so that they can readily draw their own conclusions about the course and duration of the war in the Pacific.

Though Japanese cities are being battered in a crescendo of Allied bombing, Army experts—fresh from target studies in Germany—estimate that Japan is still producing planes at the rate of 1,200 to 1,500 a month, ships at the rate of 1,000,000 tons a year, and steel at nearly 1,000,000 tons a month.

**While the Nipponese Navy is undoubtedly too badly smashed to attempt any comeback on the long lifeline to southeast Asia, enough units are probably left to protect, for many more months, the short inside supply route from Korea and Manchuria.**

With big-scale fighting confined, so far, to single campaigns—in the Philippines, on Iwo Jima, and on Okinawa—the drain on either manpower or supplies has not been serious for a nation reputed to have between 7,000,000 and 10,000,000 men under arms and vast stocks of raw materials stored for an emergency.

An Allied effort to stage an invasion of the main Japanese islands before the blockade has been tightened and prolonged, and until bombing has cut dangerously into production and morale, is not to be expected.

**It's likely to require another year to fight Japan to its knees.**

**Japan, nevertheless, has been gravely weakened by the losses of the last 14 months.**

Burma is virtually lost—with its large oil supplies already in the hands of Allies who can immediately utilize them for air and naval activity against the retreating Japanese.

All but one last pocket of effective Nipponese resistance has been smashed in the Philippines, with a consequent loss to Japan of one of its largest sources of iron ore, chrome, and hemp.

Borneo is slipping from Japanese control with so little resistance that the whole island is likely to be in Allied hands within a month.

Lacking a vast fleet, and surfeited with rubber, Japan can stand the loss of the oil and rubber (page 110), but their loss equips the Allies for a speedup of drives against Japan—once production of these two vital raw materials can be reorganized.

Driven by the need for rubber and oil and encouraged by the lack of effective Japanese opposition in Borneo, Allied forces—spearheaded by the British—can be expected soon to drive for the second great supply source, Sumatra.

In this and further drives in southeast Asia, opposition at most points will be negligible—as in Borneo. **But you can look for the Japanese to mass their forces for a tough showdown at key ports—Penang, Singapore, Batavia, Saigon—and, eventually, Hong Kong.**

**Don't be surprised if the U. S. forces land along the China coast (probably in the neighborhood of Foochow or Wenchow) some time before fall.**

A Chinese port is badly needed to land heavy supplies for China's armies without having to depend on the flight over the Hump from India or the long haul over the Burma Road.

A drive to occupy such a port in the midst of friendly Chinese territory should not be construed as the beginning of an Allied land campaign on the

# THE WAR AND BUSINESS ABROAD (Continued)

**BUSINESS WEEK**  
**JUNE 30, 1945**

Asiatic mainland. Any such big-scale move in China is almost sure to be staged north of the Yangtze and much later.

For what it may mean before the war in the Far East ends, don't miss this recent significant statement by Marshall Gregory K. Zhukov, representative of the U.S.S.R. on the Allied Control Council for Germany:

"I was stationed in Outer Mongolia and took part in the battle of Khalkin-Gol in 1939. The battle . . . lasted ten days and ended in the complete rout of the Japanese Sixth Army which was surrounded and wiped out."

Whatever role the Soviet Union decides to play in the Far East, it is obvious from the emphasis on Russia's 1939 tactics and from General Eisenhower's appeal for overwhelming supplies of men and machines that **no all-out drive against Japan will be attempted until masses of men and equipment are available for a quick, decisive showdown.**

**Tokyo's threat to move industry to Manchuria to escape bombing and the threatening invasion of the homeland should not be taken seriously.**

Japan is even more conscious than the U. S. of Russia's power to launch an attack on this region at any time. Since Moscow's notice last April that it intended to terminate the old nonaggression pact when it runs out next April, Tokyo would hardly risk the loss of several months' production during the transfer for such questionable security.

Meanwhile, look for rapid-fire developments intended to speed the postwar reconstruction program.

The Senate will accept the Charter for the United Nations, but not necessarily before the Big Three meet near Berlin.

While there is general satisfaction over the pattern for world cooperation drawn up at San Francisco, it is admitted on all sides that its success depends on the ability of the U. S. and the U.S.S.R. to get along with each other.

Despite strong minority opposition to the new power to cut tariffs 50%, **Congress is in a mood to encourage broad utilization of this authority as the country's best bargaining weapon at the forthcoming world conference on commercial policy (page 21).**

Also, the Johnson act will be repealed, capitalization of the Export-Import Bank will be boosted, and the basic principles of the Bretton Woods plan will be adopted.

**New developments in Brazil should not be overlooked.**

**Cotton** available for export this year amounts to 610,000 tons, compared with an annual prewar average of 270,000.

Sao Paulo manufacturers of **machine tools** have recently delivered 60 lathes to Argentine buyers, and more are en route, though neutral suppliers insist that prices are so high that Brazilian manufacturers cannot possibly meet postwar competition unless they are drastically reduced.

Sao Paulo is buying 22 **trolley buses** (18 from the U. S. and four from Britain) for trial service. If satisfactory, orders will be placed for 400.

Confronted with persistent Interstate Commerce Commission refusal to permit further expansion of their service in the U. S., **officials of the Greyhound Lines will leave soon to survey bus line possibilities in Colombia, Venezuela, Cuba, and Jamaica.**

# Moving Day in Europe

Redeployment, in addition to evacuation of 2,500,000 troops, means assembling, overhauling, and shipping untold tons of supplies. Businessmen in uniform aid Army's biggest job.

V-E Day, though it brought an end to fighting in Europe and a consequent lull in the flow of almost all supplies from the United States, touched off one of the biggest Army jobs of the war.

**Biggest in History**—To the Transportation Corps, it was the signal which put in action carefully laid plans for the biggest moving day in history—the evacuation from Europe of more than 2,500,000 troops and the mass of personal equipment and heavy supplies which will be transferred directly to the Far East.

And to the Army supply agencies it meant the collection of all kinds of material at vast assembly camps, there to be sorted by types, allocated to selected European factories for repair

when necessary, and run down a disassembly line for final packaging before being shipped to Pacific bases.

• **Troops Come First**—Even the Army, accustomed as it is to operations on a huge scale, is impressed with the size of the job just getting under way.

First task is to get the troops home from Europe.

To do this, 17 redeployment centers have been set up in northern France in a 3,200-sq.-mi. area around Reims, all under the control of the Communications Zone (Com Z) authorities, who have supplanted SHAEF in France since V-E Day. As a whole the area can handle about 270,000 men at a time, though it is likely to be September before it is operating at capacity. As a result the job is not expected to be completed before next May or June.

Troops bound for the United States—for discharge, or local assignment—can be processed and on their way again in 15 to 20 days. Those bound for the Pacific by way of the United States require 25 to 40 days, with orientation lectures sandwiched between movies and organized athletics or conducted tours in Europe or Great Britain.

• **Equipment Goes Direct**—Then there is the task of transferring supplies. To the surprise of the average G.I., even his personal equipment—rifle, helmet, and all heavy gear—is being collected in Europe, reconditioned, and shipped direct by freighter to his future assembly point in the Pacific. Winter clothes are turned in at the assembly area, a fresh outfit issued for his leave, and then—at some West Coast port in the United States—he is to receive his new outfit of tropicals or heavy uniform, depending on whether he is to be assigned to the South Pacific or to rugged, winter campaigning in North China and the main Japanese islands.

Involved in the big move is the handling of 94,000,000 units of clothing by the Quartermaster Corps, 255,000 radio communications sets by the Signal Corps, 21,000 pieces of heavy construction equipment for the Engineers, 160,000 vehicles by Ordnance, 2,000,000 gas masks by Chemical Warfare divisions, and 23,000 units of specialized equipment for the Medical Corps.

• **Texan in Charge**—Businessmen in uniform working with career Army officers are responsible for carrying out much of the moving job.

## Report From Europe

When the history of this war is written, a huge chunk of it will have to be devoted to the dramatic job of military business management that started with the end of the fighting in Europe—the great reversal of the line of march and supply that we call “redeployment.”

The size and intricacy of this task of transporting men and equipment from Europe's battlefields and supply centers to the United States and Asia have to be seen to be appreciated.

Business Week's Foreign Editor saw it as one of his assignments in Europe during the V-E Day period. His report to management herewith provides a vivid picture of the business of redeployment and of the way in which businessmen in uniform are contributing to its success.

A wiry Texan who enlisted in the Army as a private in 1916 heads the transport job. Maj. Gen. Frank S. Ross, son of an El Paso & Southwestern R.R. mechanic, was the Chief of Transportation, European Theater of Operations, who managed the transport which carried the 2,000,000 troops from the beachheads of Normandy and the Riviera to the last battles along the Elbe, and kept them supplied with 1,500,000 tons of supplies a month, besides the oil which followed them in pipelines and tank cars.

Gen. Ross's task now is to assemble—by rail, truck, canal barge, or plane—all of the men and material (except the occupation armies and their equipment) scattered over western Europe.

• **Experts Direct Work**—Helping in the colossal task are specialists from some of the biggest transportation businesses in the United States.

Rail traffic is planned and routed by old-timers from the Pennsylvania, New York Central, Northern Pacific, Illinois Central, and the Chicago, St. Paul, Minneapolis & Omaha railroads.

Freight is supervised by a New York industrial engineer, the freight traffic manager of a big Milwaukee manufacturing company, an executive of Eastman Kodak, the superintendent (in peacetime) of the Jacksonville terminal of the Atlantic Coast Line, and a Wyoming terminal operator for Union Pacific who won his spurs in military railroading while operating the famous lifeline across Iran to Russia.

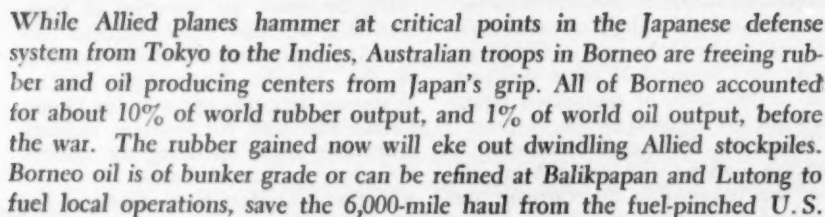
• **Shipping Leaders Help**—Some of the biggest steamship lines in this country



## HOME AGAIN

Installation of a static generator (above) in Kharkov's Physico-Technical Institute suggests that the restoration of research equipment ranks high on Russia's rehabilitation program. Evacuated previously, the high-voltage units are being returned from other sites where it is assumed research continued in such fields as the dielectric breakdown of materials.

## Toehold on Japan's Oil and Rubber Empire



• **Hint on Pacific Schedule—Moving** “day” in Europe will last for at least ten months. It will utilize most of the 1,900 locomotives and 28,000 freight cars brought from the United States.

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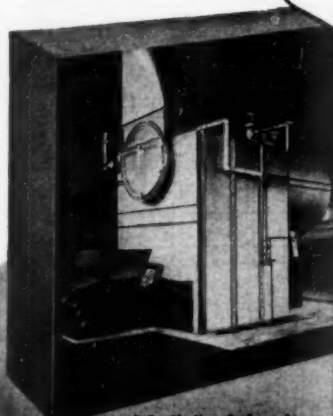
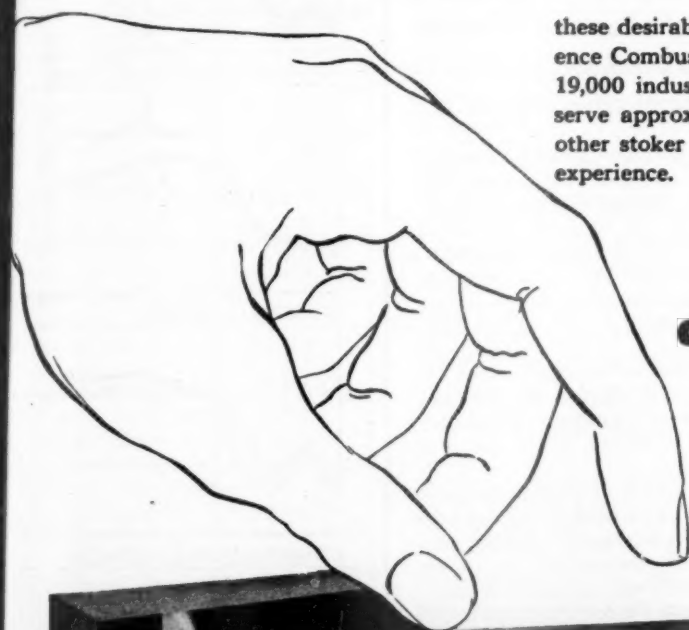
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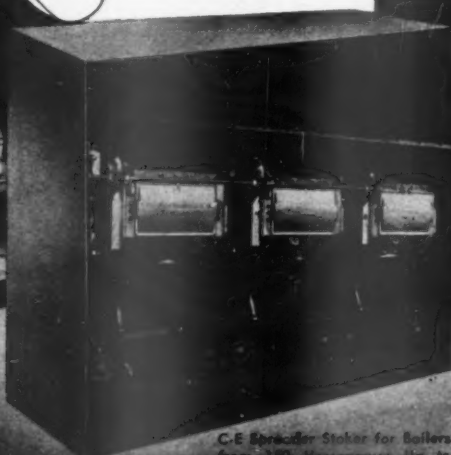


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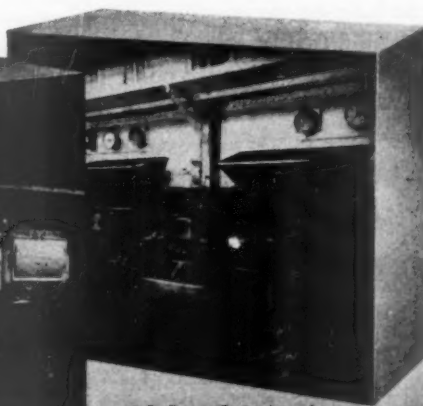
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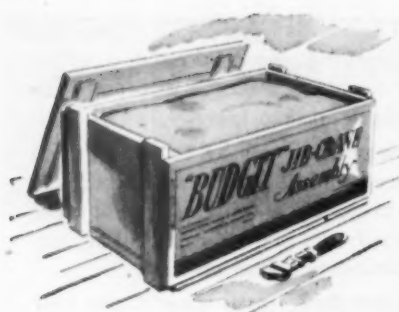
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and spill over into the 250,000 remaining cars of the French railroad, and draw on the services of the vast Army trucking systems which will continue to serve the Army as long as there are forces in Europe.

Official thinking on the duration of the war in the Pacific may be indicated by the fact that the master delivery plan schedules arrivals of this European equipment at Far Eastern bases as late as the third quarter of 1946. In Paris, the moving officers pooch-pooch this suggestion. To them, the schedule is just one more target which they must meet before their job in Europe is finished.

## CANADA

### Revenue Problem

Conferees at Ottawa will face task of allocating zones of taxation to Dominion, provincial, and municipal governments.

**OTTAWA**—The general election and its repercussions have passed into history, and the government is ready to get down to business with two major events on its summer agenda:

The Dominion-Provincial Conference will meet on Aug. 6.

Parliament will be convened on Aug. 23.

• **Twofold Task**—The conference will bring together at Ottawa the premiers and chief cabinet ministers of the nine provinces of Canada. Their task will be to consider:

(1) Reallocation of present tax jurisdiction, with the aim of giving the various levels of government (federal, provincial, and municipal) the tax authority which will provide the maximum yield with a minimum impairment of business efficiency.

(2) Allocation of social welfare, unemployment relief, and other functions of government to the agencies most competent to administer them.

• **As Government Sees It**—Ottawa contends that such levies as personal and corporation income taxes and succession duties, on wealth obviously earned on a national basis, can only be effectively collected by national machinery, even if the Dominion government acts as little more than a collecting agency for the provinces.

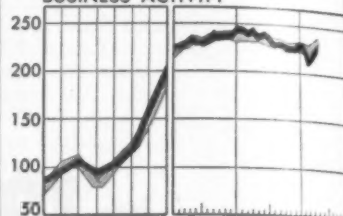
"The government also contends that mass unemployment of employables, arising out of failure of national trade, tax, finance, and development policies, must be the responsibility of the

## TREND OF BUSINESS CANADA AND U.S.A.

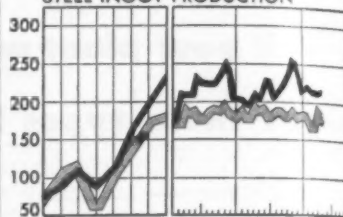
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CANADA — U.S.A.

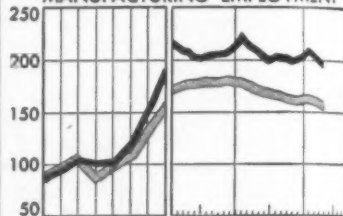
### BUSINESS ACTIVITY



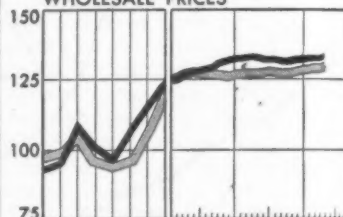
### STEEL INGOT PRODUCTION



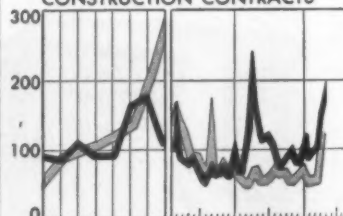
### MANUFACTURING EMPLOYMENT



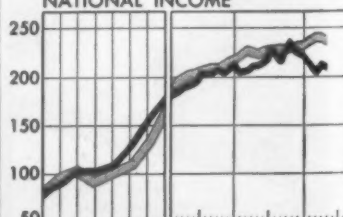
### WHOLESALE PRICES



### CONSTRUCTION CONTRACTS



### NATIONAL INCOME



© BUSINESS WEEK

and not of the municipalities  
in which the unemployed  
are to be residing at the time.  
Issues Will Arise—These are  
main problems, but many lesser  
are sure to arise when the  
politicians assemble. A previous  
such a conference flopped in  
when three of the provincial pre-  
threatened to walk out with their  
ations. One of this group has since  
William Aberhart, Alberta), and  
other two (Mitchell Hepburn, On-  
and T. D. Pattullo, British Colum-  
are no longer in office.

Nevertheless, Mackenzie King's Lib-  
government will have several hos-  
ests on Aug. 6, notably Maurice  
essis, head of Quebec's Union  
male party, George Drew, Pro-  
Conservative of Ontario, and  
Manning of Alberta, Social  
party.

committees to Be Set Up—It is not  
ted that the conference can do  
more than get under way before  
ment meets. The delegates will  
proposals of the Dominion gov-  
ent and submit their counter-pro-  
s. Then four committees (to study  
ce, constitution, labor and unem-  
ment, and special problems) will  
et up and the conference adjourned  
October or later.

the allocation of tax fields is likely  
to be the most contentious issue.

Following the breakdown of the  
conference, the provinces agreed  
42 to get out of the personal and  
ration income tax fields during  
ear in return for guaranteed annual  
ents from the federal treasury.

pending Problem—This agreement  
es "one year after the termination  
ostilities," at which time the  
union has agreed to reduce the ex-  
of its participation in these fields  
to permit, if the provinces so  
e, provincial re-entry as tax col-  
ers.

the abolition of duplicate and tripli-  
income taxes resulting from the  
time agreement has been so popular  
many observers believe it will not  
politically feasible for the provinces  
municipalities to regain jurisdic-  
even if the Dominion is willing to  
ce its levies.

Ottawa's Policy—The government will  
at the conference that the level  
federal revenue needed for postwar  
instruction, rehabilitation, and so-  
security measures will necessitate  
the most efficient methods of col-  
on and (2) the avoidance of re-  
sive tax measures which might dis-  
rage or even stifle industry.  
The provinces, on the other hand,  
a financial monopoly in Ottawa  
ch would impair their autonomy.

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Many of the country's leading carriers enjoy the advantages of working with an air-minded insurance company.



For progressive handling of your Group Insurance, write a progressive company.

**CONNECTICUT GENERAL**  
LIFE INSURANCE COMPANY  
HARTFORD, CONNECTICUT

THE  
PROTECTED  
PAY ENVELOPE

# THE MARKETS

(FINANCE SECTION—PAGE 6)

The stock market continues to be featured by the price strength displayed by other-than-industrial issues except in the case of various industrial "specialties." Despite gains of some 26% and 18% in the Dow-Jones rail and utility stock price averages since March, new buying orders remained sufficiently plentiful early this week to send both indexes soaring through their earlier 1945 records to the highest peaks since mid-1937.

Since late last week, however, the industrials as a whole have been participating, for a change, in the advances staged by the rail and utility groups. It would now appear that the long period of divergent price action causing so much uneasiness among Wall Street's more conservative market observers has finally come to an end, at least temporarily.

• **An Eight-Year Peak**—In fact, by Tuesday of this week, although there has been nothing spectacular about the move, the Dow-Jones industrial stock average managed to duplicate the performance of the other indexes by rising above its earlier 1945 high-water mark to a new eight-year peak.

To make matters even more pleasing to Wall Street's bullish elements, trading volume has risen sharply since the industrial shares started to advance.

Because of these recent changes in the general stock market picture, many previously on-the-fence Wall Streeters now look for the stock market's traditional "summer rally" to proceed as usual without any serious interruptions.

• **Decline Under Pressure**—Other observers, however, think it's still too early to crow. Unlike those turned bullish, they have yet to be impressed by the

power behind the industrial "rally." Quite disturbing to them, instead, been the quasi-wave of liquidation which started when the group rose into high ground, for by Wednesday the pressure had succeeded in driving the industrial averages well below the early 1945 high temporarily penetrated the previous day.

The doubting Thomases haven't lost the prominent role the low-price speculative issues have been playing lately, and they point out that Commonwealth Southern common, selling at only \$1.10 a share, provided almost 12% of Monday's big trading volume.

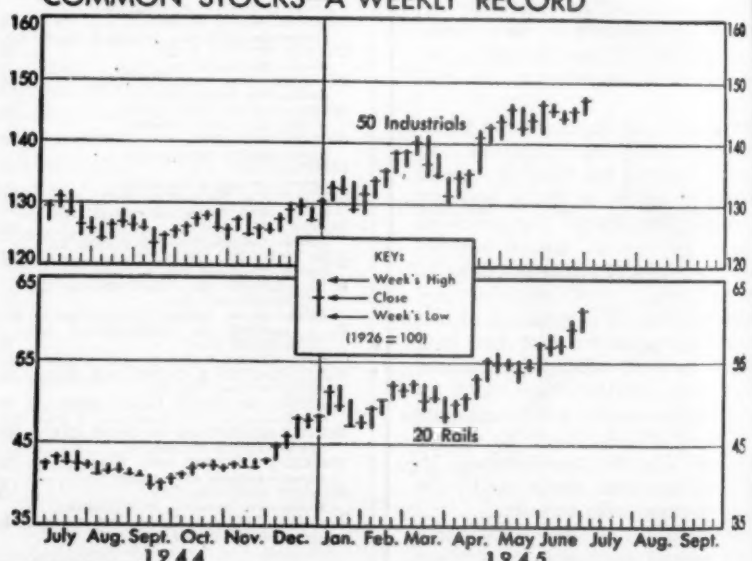
• **Reaction Expected**—Even market advisers long bullish on the Big Board longer-term price aspects frankly admit now that stocks generally have reached the point where considerable selling will have to be overcome if the shares are going to advance much further. Thus far they think such selling has been well absorbed. But they're not so certain it will continue, and some wonder if a sizable reaction may not be experienced before the market develops enough power to jump that hurdle completely.

## Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
<b>Stocks</b>				
Industrial ...	147.2	145.4	146.4	128.7
Railroad ...	61.4	59.0	57.2	42.4
Utility ...	72.7	70.0	67.7	54.5
<b>Bonds</b>				
Industrial ...	122.3	122.2	122.2	121.1
Railroad ...	115.9	115.6	115.0	105.6
Utility ...	116.8	117.0	116.6	115.9

Data: Standard & Poor's Corp.

## COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

**\*Symbol**



## Fast, accurate, uniform winding with FIDELITY Wire Spooling Machines

With one of these FIDELITY Machines, you wind every spool, stick, tube or quill of wire at high speed and get an even lay of wire in units of unvarying length and weight.

This precise and accurate control is important in its ultimate economy, whether applied to wire packaging or to producing units where length, weight, spacing, taper or other mechanical tolerance limits affect performance.

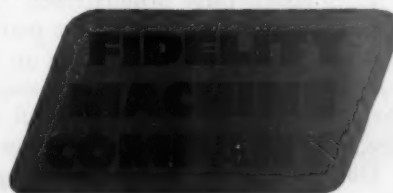
FIDELITY Wire Spooling Machines are made in a variety of types and sizes to take care of practically all kinds of precision-winding operations. All are simple to operate with the minimum attention and power consumption. Equipped with automatic yardage meter, automatic stop-motion and change gears for different wire spacing, they are versatile, serviceable machines that turn out a uniformly neat package or unit for you—economically and quickly.

Write for special bulletin on FIDELITY Wire Spooling Machines.

\*Felix Fortis, a fitting companion to the Lion of Lucerne, this Lion is one of two which guard the entrance to the world-famous Mariners' Museum near Newport News.



**PRECISION MACHINES •**



3908-18 Frankford Avenue, Philadelphia 24, Pa.

## Advertising and Government

The contribution that the advertising profession has made toward winning the war probably never will be fully appreciated by the average reader. But those who are in charge of drives to have us buy bonds, salvage fats, and save paper know that advertising's ability to translate statistics of demand, supply, and urgency into dramatic phrases that lead to action has aided greatly in the success of these and similar campaigns. Once the war is ended the need for understanding of what the government is doing, and is capable of doing for its people, certainly will not be less than at present. Robert Tinsman, president, Federal Advertising Agency, New York, is convinced there is need now to consider continuance and expansion of advertising's war-born function in the years to come. He writes:

Why not, for example, a continuing campaign to promote the aims and objectives of the Dept. of Agriculture?

As a farmer, I am glad to acknowledge my gratitude for the help I receive so continually. It is true I study my farm papers, I start my thinking there, but when it comes time for decision, I welcome the authoritative advice of the Dept. of Agriculture as summarized in its specialized pamphlets and put into practice by the county agent.

I operate four adjoining farms, and the rows go back to Revolutionary days. With the help of my county agent, I am tilling my farms anew, increasing the size of my fields to make the most of mechanized labor and analyzing my soils to get the most in fertilizer efficiency.

It is the modern farm trend, necessary to intelligent competition, but by no means an ancient practice as it should be. Why use advertising to hasten the day when farmers employ the most scientific methods to eliminate erosion, to increase food production, and to improve their incomes?

Tinsman sees opportunity for application of the principle to other sections of the government:

The Dept. of Commerce should be just such a source of business inspiration and practical assistance to the average businessman as is the Dept. of Agriculture to the progressive farmer. Why not acquaint the public generally with what it has to offer in the local as well as national interest?

Why not a new concept of the duties and functions of our Dept. of Labor—not to wait in trouble before it is brought into the national picture, but to sell both sides, capital and labor alike, on the mutuality of their interests with the public welfare and the national supremacy?

It takes flood rampage or dust-storm devastation to wake up the public to the im-

portance of the Dept. of Agriculture in the preservation of our national resources. Or the questions and rumors around such colossal enterprises as the Alaska Military Highway or the Canol pipeline to make the public wonder "what is what." Why not an advertising campaign to tell the truth, to hush the rumors, and restore the confidence of the people in Uncle Sam's usual efficiency?

We are proud of our State Dept. and its high place in world affairs. But who can translate the intricacies of Bretton Woods, Dumbarton Oaks and San Francisco to the lay mind so that he can think, and decide, and vote to his own best international interests?

Why not an advertising campaign to make it all plain to the average reader? There are Thomas Jeffersons aplenty among our copywriter stars who are able to write today's Declaration of International Independence, which future generations would acclaim as the birth announcement of a world without wars because it proclaimed the common sense of mutual international interest so far above mere selfish national sovereignty.

Tinsman recognizes the need for coordination of the various departmental aid programs and suggests:

And if this makes any sense at all, why not make a place in the cabinet for an Advertising General to promote the business of good government in all its branches for the common good of all our people for all time? This would mean a continuing, definite policy of display advertising, in all suitable media, bought and paid for quite independent of the present free publicity policy, too frequently irresponsible because it is so likely to be merely political either in origination or interpretation.

## Termination Troubles

J. K. Lasser's "How to Speed Up Settlement of Your Terminated War Contract" (McGraw-Hill Book Co., New York, 186 pp., \$3.50) endeavors, through check lists and index, to break down termination regulations of the War and Navy departments and the Office of Contract Settlement into a nontechnical explanation of how a businessman in war production should handle plant operations and inventories before and after he receives a termination notice.

Now that cutbacks are becoming more numerous, it might be well to repeat a warning, first issued more than 18 months ago, by Col. H. E. Bullis of the Army Service Forces:

Only by appointing men with sufficient authority to act promptly can reconversion problems be handled efficiently. If too many companies delay on this matter, the contract termination rush may be something like a fire in a crowded theater. Everybody will want to get out at once—and collect their money at the boxoffice en route.

# THE TREND

## NEW FIGURES FOR POSTWAR BUSINESS

American business this week was introduced to a new set of figures which comes under the heading of important news. For the first time we have the composite judgment of American businessmen on (1) how much they plan to spend for plant and equipment in the coming year, and (2) how much they expect to be selling after the end of that year. These new statistics are packaged in a report by the Dept. of Commerce, based on a survey of 7,000 companies which in 1939 accounted for 30% of U. S. factory output.

After mid-1946, manufacturers expect dollar sales to be running about 20% lower than in 1944, but more than 100% higher than in 1939, they say. This rate would correspond to a gross national production of about \$150 billion, as against nearly \$200 billion now. It would be close to the \$175-billion-or-so volume required for full employment. It presupposes a munitions output at one-third of the early 1945 rate—or at approximately what you would estimate for the liquidating phase of the war.

• The expenditure "plans" for the next year which Commerce reports are not commitments, but they are not just nebulous either. They add up to an outlay of \$4.5 billion by private manufacturers for construction and equipment in the year ahead. For comparison, this would be nearly triple the 1937-1940 rate and much higher than the previous peak of \$2.75 billion in 1929. However, while the private total in 1941 was \$2.7 billion, there were also \$2.3 billion of government expenditures for arms plant and equipment in that year, and the combined 1942 aggregate was \$8.4 billion. Roughly, the planned outlays for the next year would correspond to a gross national production somewhat above \$150 billion, according to a computation by D. Stevens Wilson, which accompanies the Commerce report.

These estimates are geared to each polled manufacturer's assumptions for the periods ahead—as to the length of the war, the extent of cutbacks, the rapidity of reconversion, and so on. And it is worth noting that the level of gross national output implied by both the sales and investment figures is only slightly below both (1) that which Business Week projected as a reconversion minimum (BW—Jan. 8'44, p120), and (2) that which the Commerce Dept. itself projects for late 1946.

• So, in effect, these manufacturers' judgments strike a note of temperate optimism for postreconversion business prospects. They seem to add up to a gross business volume not very far short of full employment. But, in their current form, the figures still suffer from many vagaries and present many difficulties of interpretation.

However, this new statistical technique bears an impor-

tance that goes beyond the results which it immediately offers. Such estimates of the future are required for a program to maintain full employment—which must inevitably work on clues to what future business conditions will be. Thus, statistical guides of this character are called for in the Murray bill for a national budget to guide government activities towards full employment (BW—Dec. 23'44, p120). And they are essential to a plan for business to help maintain stability and prosperity by voluntarily controlling its expenditures.

• In this respect the investment figure is perhaps more interesting than the sales forecast. For business finds it hard to foretell what consumers will spend until it knows what their income will be. But business gears its own investment expenditures to its needs, which, in some cases, it may foreknow.

That's one reason why many economists place investment at the top of their list of the factors which determine over-all production. Of course, you encounter a bit of the chicken-and-egg dilemma in asking whether business invests because consumer demand expands, or demand increases because business invests (and in turn creates jobs and purchasing power). But, at least we know that business investment and general activity normally go hand in hand. Now, of course, Commerce cannot say what business will spend; it can only report plans. But in a sense, that figure is like a new-order curve—this time a year in advance.

• While it is hard to get at the exact reasons for manufacturers' plans, they seem today to be primarily focused on two purposes: (1) making up plant and equipment expenditures which were deferred during the war, and (2) effecting alterations and reconversion for peacetime production. Two additional factors may at some later time push producers' investment higher. One is expenditure on technological innovations to reduce labor costs, which have soared during the war (BW—Mar. 10'45, p120). The other is expansion to meet enlarged consumer markets founded on savings accumulated during the war.

Thus, while munitions needs may preempt too much of our industrial capacity to handle this \$4.5-billion planned investment if the Japanese war lasts the full additional year, there may be forces working for larger totals after Japan's defeat, just when they will be needed.

In the end, even with these estimates, we do not now have a guaranteed prediction of business conditions for the period just ahead. But we do have a first opportunity to test a new technique—to test whether actions do come up to plans.

*The Editors of Business Week*

# Electrical Weapons by the Maker of Bell Telephones

No. 3 of a series: for the Signal Corps



## How to make 2 wires do the war work of 20

As our armies push forward, they need more and more communications channels. They get them **quickly**—thanks to Western Electric carrier telephone equipment.

Without carrier, 2 wires ordinarily carry one telephone and one or two telegraph circuits. By using **carrier** equipment, more telephone and telegraph circuits can be provided without adding more wire. This makes maximum use of existing wires—eliminates the need to manufacture, transport and install thousands of additional miles of wire—saves countless hours in providing vital circuits.

The Army, for example, uses carrier to obtain three telephone and fourteen telegraph circuits over one pair of wires. Even with the use of much carrier equipment, the Army's consumption of wire in France ran as high as 3,000 miles per day.

Carrier telephone equipment has long been made by Western Electric for the Bell System. Army needs, however, differ in many ways from regular telephone requirements.

To meet these wartime conditions, Bell Laboratories engineers designed a revolutionary "packaged" carrier equipment for the Signal Corps. Self-contained, completely wired for quick, easy installation, these units have been produced by Western Electric in vast quantities. On every front, they are speeding our Circuits for Victory!

*During the Seventh War Loan Drive, buy bigger extra War Bonds!*



### Western Electric

IN PEACE...SOURCE OF SUPPLY FOR THE BELL SYSTEM.  
IN WAR...ARSENAL OF COMMUNICATIONS EQUIPMENT.



# "Sunday Punch"

*that Travels 15 Miles!*



When "Long Tom"—155 mm. heavy-weight of the battlefield—hurls his 95-pound shell at an enemy 15 miles away, he delivers the "Sunday Punch" of our hard-hitting field artillery. And he throws 3 of these long-range, knock-out punches a minute.

Yet with all of its striking power, this gun is highly mobile, especially when mounted on a Sherman tank chassis, as pictured below.

Because of the tremendous pressure and strain generated upon firing, "Long Tom" barrels and breech blocks are made of the finest steel obtainable—Electric Furnace Steel. Made to exacting specifications, much of this steel has come from Republic.

Republic Electric Furnace Steels top the list for strength and toughness—

and for favorable strength-to-weight ratio. And the close control possible only in electric furnace melting keeps them *ALWAYS* "on target," enabling them to hit predetermined specification marks smack on the nose.

These steels are as *CLEAN* and *SOUND*—as consistently *UNIFORM*—as the most expert furnace practice can make them. They are free from imperfections which might initiate cracks and lead to dangerous failures. They are free, too, from prac-

tice-upsetting variables—thus insuring full benefits from mass production methods.

Republic—world's leader in this field of steel making—is ready NOW to help you improve the quality of your peacetime products and cut manufacturing costs. Write to:

## REPUBLIC STEEL CORPORATION

*Alloy Steel Division • Massillon, Ohio*  
**GENERAL OFFICES • CLEVELAND 1, OHIO**  
 Export Department: Chrysler Bldg., New York 17, N. Y.



Signal Corps Photo

## REPUBLIC

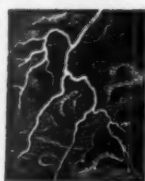
*—Leader in the Production of*  
**ELECTRIC FURNACE STEELS**

**"QUALITY" steels . . . alloy . . . stainless**





**186,000 MILES A SECOND!**



New secret, war-born developments of aluminum enable radio and radar to span *new* horizons with the speed of light : : : 186,000 miles a second! Every radio and radar operator in the armed services knows these secrets

. . . and so also does the Orange Screen Company of Maplewood, N. J., which makes large quantities of aluminum cases, cradles and other communications equipment, which for reasons of security, must remain secret.

Here is a typical example of a small company whose executives sought aid from Alcoa development engineers in perfecting war production plans. In 1925 the Orange Screen Company began supplying aluminum screens for homes, factories and railroad cars. A little later they expanded to include special purpose windows made from extruded aluminum.

With an enviable record for accuracy in high precision work, Orange Screen Company executives embarked on a war program of assembling aluminum chassis and cradles for delicate radar and radio equipment. Through the aid and assistance furnished by Alcoa's technicians, their conversion to war work was made simple and profitable. Today they assemble extruded aluminum sash and window panels for P. T. boats; bridge control boxes; tow target housings; junction boxes for communications work, aircraft window frames, and various "hush-hush" aluminum parts that they form and weld. They are the "silent partners" of many manufacturers.

Recognizing that America prospers only as small business prospers providing additional jobs and opportunity for millions of workers—Alcoa stands ready to assist any manufacturer, large or small, involving the use of any aluminum products.

ALUMINUM COMPANY OF AMERICA  
2104 Gulf Building, Pittsburgh 19, Pa.

\*PROCESS PATENTED

**ALCOA** FIRST IN **ALUMINUM**





## Getting at the Inside Story of a Shoe

HERE are some interesting facts about shoes for you to chew on.

There's more to the comfort, appearance and wearing quality of a good shoe than meets the eye. One of the most important features... one which you have probably never even considered... is the lining fabric.

A lining fabric has a great deal to do with how well the shoe holds its shape. It must have a durable elasticity. It must also be fine, soft and flexible... yet tough enough to withstand the "sawing" action that goes on within the fabric when the shoe is worn. It must be smooth to reduce friction and abrasive wear.

You may wonder how any fabric could possibly satisfy

all these requirements. Yet it is a job that rayon takes in stride. For rayon, being a man-made fiber, can be tailored made for an intended use. Because of this unique quality many of the finest shoe lining fabrics today are made of rayon fabric specially engineered for the purpose.

It is this same quality that makes rayon fitted for such a wide variety of uses. And it is because of rayon's versatility that the American Viscose Corporation program of continuous research is so important.

Through this program, dedicated to the continuing development of new yarns and improved fabrics from rayon, this basic fiber will fill an increasingly helpful and prominent role in the lives of all the people of America.

## AMERICAN VISCOSE CORPORATION

*America's Largest Producer of Rayon Yarns and Staple Fibers*

*Sales Offices: 350 Fifth Avenue, New York 1; Providence, R. I.; Charlotte, N. C.; Philadelphia, Pa.*

*Plants at: Marcus Hook, Pa.; Roanoke, Va.; Parkersburg, W. Va.; Lewistown, Pa.; Meadville, Pa.; Nitro, W. Va.; Front Royal, Va.*

Reg. U. S. Pat. Off.

*A better way to  
buy Rayon Fabrics*



This identification is awarded only to fabrics containing CROWN rayon, after they have passed the CROWN Tests for serviceability.



## Personal Affairs of "THE SEATTLES"

**T**HE average Seattle family of three has \$1,350 cash in savings. They own \$1,000 in "E" war bonds. Their spendable income is recognized by authorities as far above the national average. More than half the homes in Seattle are *owned* by the families who live in them! Many new homes soon will be built. These are just a few of the many important reasons why Seattle is a *solid* market with a *solid* future. *The Seattle Times* is the preferred newspaper in 7 out of 10 Seattle homes!

**MANUFACTURERS:** *Attention!* Scores of producers of branded articles are *now* entering the Seattle market; many who are not yet in civilian production are now making connections here. They find it easy to establish themselves quickly, firmly and economically. Bomber and ship production and ship repair will continue at accelerated pace in Seattle until Japan is defeated. Employment and income will remain high. Goods are scarce. Now is the time to act!

### HOW SEATTLE COMPARES

CITY	Savings Deposits [Millions]	"E" War Bonds [Millions] Jan. 1942 to April, 1945	Per Capita Effective Buying Income	Population Rank
Seattle	\$275	\$209	\$2,251	18
Boston	300	294	1,486	9
St. Louis	245	293	1,702	8
Cincinnati	152	201	1,850	19

SOURCE: Chambers of Commerce; Sales Management.

HEAD AND SHOULDERS ABOVE ALL OTHER SEATTLE PAPERS





**RANGE FINDERS**



**OR REFRIGERATORS**

## ... Both are Jobs for STEAM

**M**etals for war—by the millions of tons—is still the No. 1 job in America's 26,000 metal-producing and metal-working plants, which together use one-third of the nation's available horsepower.

Yet another job, still bigger perhaps, lies ahead of this industry—as the urgency of war production begins to unwind into the pattern of peacetime trade. With reconversion from range finders to refrigerators, from bazookas to bath tubs, will come *competition*, from pre-war rivals and vigorous new-comers—competition that will dictate increased emphasis on steam plant reliability, efficiency, and operating costs.

For then, as now, steam will provide most of the power that turns the wheels of the vast metal industry. From steam will come, too, most of the marine and locomotive power to convey its peacetime products to market. *Low*

*cost steam* will, therefore, be a big factor in lowering production costs, in meeting the accelerated competition of the future.

Planning for low cost steam tomorrow is a job B&W engineers are ready to tackle *today*, in partnership with engineers of industry. The long leadership of B&W has been greatly augmented by new valuable experience gained in serving industry's war needs . . . experience not only with boilers, but with pulverizers for efficient firing of metallurgical furnaces . . . with specially refractories . . . with mechanical tubing, both seamless and welded for almost innumerable uses . . . with alloy castings in a wide variety of sizes and shapes. This vast experience and the versatile facilities of B&W are at the disposal of engineers in all industries in connection with present problems or future planning.

Water-Tube Boilers, for Stationary Power Plants, for Marine Service . . . Water-Cooled Furnaces . . . Superheaters . . . Economizers . . . Air Heaters . . . Pulverized-Coal Equipment . . . Chain-Grate Stokers . . . Oil, Gas and Multifuel Burners . . . Seamless and Welded Tubes and Pipe . . . Refractories . . . Process Equipment.



**BABCOCK & WILCOX**

THE BABCOCK & WILCOX CO.  
85 LIBERTY STREET • NEW YORK 6, N. Y.

THE BABCOCK & WILCOX TUBE COMPANY  
SEAMLESS TUBE DIVISION, WELDED TUBE DIVISION,  
BEAVER FALLS, PA. ALLIANCE OHIO



"I located a company taking care of repairs for my make of vacuum cleaner."



"I found a certain brand of shoes through the Classified."



"Being new in town, the Classified has been of great use."

## The Classified proves helpful at home ... in industry



"The Classified enabled me to locate an electrical motor repair concern."



"The Classified helped me get in touch with a doctor in a hurry"



PEOPLE in factories as well as at home regularly use the Classified section of Telephone Directories for information to solve their buying problems.

The examples illustrated here were taken at random from a survey among telephone subscribers and are typical of the many thousands reported.

In war, as in peace, the Classified makes life a little more convenient.





# COILFORMS OF NYLON

*Used in U. S. Navy Sound-Powered Telephone Unit*

**FOUND TOUGHER—LESS EXPENSIVE—MORE HEAT-RESISTANT**



**The OLD Way:** Coilform made of three layers of 0.004 inch gummed kraft paper and vulcanized fiber flanges, anchored by fillet of phenolic cement. These coilforms lacked the necessary strength and dimensional stability.



**The NEW Way:** Coilform injection molded of Du Pont nylon. Though the wall is only 0.012 inch thick, it maintains, under tests, dimensional and dielectric stability at temperatures as low as -60°F and as high as 400°F. The nylon flange is so strong that it can be bent to a 90-degree angle without breaking.

Nylon coilforms molded by Boonton Molding Co., Boonton, N. J., for Control Instrument Co., Brooklyn, N. Y.

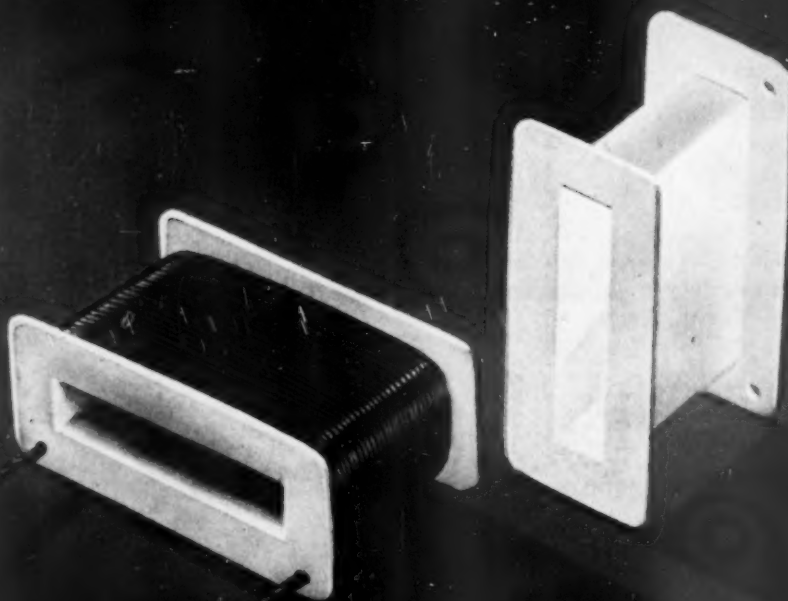
THROUGH the use of coilforms of Du Pont nylon in U. S. Navy sound-powered telephone units, the ruggedness and dependability of this vital instrument have been improved. In addition, nylon has made possible remarkable manufacturing strides—cost of the finished coilform has been cut 50%—production per man stepped up from 800 to 1000%—and production yields increased from 10 to 95%.

This is one of the many places where versatile nylon is improving product efficiency—and helping manufacturers and sales departments dream promising dreams of the future. And nylon is only one of the many outstanding plastics developed within the research laboratories of Du Pont which are today at work in the war. All of them, including several yet unannounced, will make equally noteworthy contributions to better living in the years ahead.

If you are considering the development of new products or parts, or intend doing so soon, consult Du Pont. Address E. I. du Pont de Nemours & Co. (Inc.), Plastics Department, Arlington, New Jersey.

**SUPPORT THE SEVENTH WAR LOAN . . . BUY MORE BONDS**

**FOR PLASTICS . . . CONSULT DU PONT**



BETTER THINGS FOR BETTER LIVING  
...THROUGH CHEMISTRY



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& Co.  
Jersey

BONDS



## ANOTHER JOB FOR SYNTHETIC RESINS

### ***New Techniques for an Old Art***

The old art of metal casting still depends upon the individual skill of the craftsmen who practice it. Today, however, the difficult task of hollow casting with light metals has been substantially lessened by improved processing materials.

As the use of aluminum and magnesium became more general, the problems which they presented became more acute. This was particularly true in hollow casting, where sand mixes of special properties were necessary. These sand mixes must form a core which, after shaping and baking, becomes

the mold around which hot metal is poured. The sand core must then readily break down and be capable of quick and clean removal. UFORMITE 580, a thermo-setting resin, provided core sands with the properties demanded by such casting...gave, in addition, many technical advantages over previously used resin binders.

Light metal casting is just one more successful application of synthetic resins made by this company...applications which can perhaps be extended to serve your products. We shall be glad to give you the technical assistance and advice which you may require.

UFORMITE is a trade-mark, Reg. U. S. Pat. Off.

SYNTHETIC RESINS FOR COATINGS, PLYWOOD ADHESIVES, RUBBER MODIFICATION, PAPER, ION EXCHANGE AND SPECIAL FIELDS

# THE RESINOUS PRODUCTS & CHEMICAL COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

9/9  
88  
TRADE MARK

# Fundamentally Different—



## —and Far More Dependable!

### *The New MALLORY TROPICAL DRY BATTERY Overcomes Stiff Handicaps of Heat and Humidity*

**M**ilitary field communications have come a long way since the days of the primitive jungle tom-tom. But extremes of temperature and moisture have been formidable obstacles to dependable performance by the dry cell batteries that power field equipment.

The Signal Corps has long sought a dependable dry battery—one with "shelf life" sufficient to send it into action with full voltage output; one which will have substantially constant voltage throughout its operating life despite jungle heat, dank humidity, icy rains and corrosive fungi. It was a serious problem to provide dependable battery performance under such conditions.

**T**he new Mallory Tropical Dry Battery has done

much to solve the problem. Originally developed by Mallory for the Army Signal Corps, it provides longer operating life, greater power, smaller size.

**M**allory Tropical Batteries, as supplied to the Signal Corps, have from four to six times the life of the conventional batteries they have replaced. "Shelf life" is equally outstanding. It withstands high temperatures and humidity which ruin ordinary batteries. What is more, voltage remains substantially constant throughout operating life. The batteries possess the same ampere hours' service-life whether operated intermittently or continuously. In short, the Mallory Tropical Dry Battery assures dependable performance for the military equipment it powers.

*Here is dynamic progress in dry cell battery development. Of course, all production now is devoted to Army and Navy needs. But this war-born progress promises much for increased usefulness in peacetime dry battery applications.*

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA

# A big hand for the Paper Merchant

"In spite of the severe shortage of paper and manpower. In spite of priorities, allocations and other wartime limitations, the paper merchant is doing a fine job." That's typical of expressions by buyers across the country.

Here at Kimberly-Clark we know that our distributors appreciate this loyal cooperation of their customers and hope that the Day is not far off when they can serve you as they would like.

Meanwhile, these alert merchants are keeping abreast of new developments in paper and printing. By availing themselves of valuable information uncovered by continuous and extensive research at Kimberly-Clark, they are constantly adding to their store of knowledge.

So when that great Day comes, your paper merchant will not only have a finer-than-ever Levelcoat Paper to offer, but will be equipped to provide better-than-ever service.



**KIMBERLY  
CLARK  
CORPORATION**

NEENAH, WISCONSIN

*Levelcoat*\*  
PRINTING PAPERS



PAPER PACKS A WAR PUNCH—DON'T WASTE IT!



*Almost every American  
benefits every day  
from the products of  
**BORG-WARNER***

**"MUSCLES FOR AIRCRAFT"** as painted by James Sessions at the Pesco Products Co. in Cleveland. This important Borg-Warner unit makes the pumps which function as the heart and lungs of a plane. They control the pressure of fuel, oil and air which operate the plane from sea level into the stratosphere. They're also the muscles which activate the wing flaps, rudders, gun turrets, landing gear. Small but powerful, these Pesco pumps play a giant's role in every American fighting plane.

**Peacetime makers of essential operating parts for the automotive, aviation, marine, and farm implement industries, and of Norge home appliances.**

In filling peacetime needs, you can expect American industry to display the same Yankee ingenuity that is proving so vital to Victory.

Borg-Warner will make contributions in many fields. For it not only produces complete products, but also essential operating parts for products of other industries. As one example, Borg-Warner parts today are serving in 9 out of 10 makes of automobiles.

Not only through transportation

do so many Americans benefit from Borg-Warner products, but also through farm equipment which produces their food... home appliances which increase the efficiency of their homes.

From the beginning the engineering and large-scale production of all Borg-Warner companies have been guided by the principle: "Design it better, make it better." And this ideal is always working to bring you ever better products at ever lower costs.



**These units form Borg-Warner:** BORG & BECK • BORG-WARNER INTERNATIONAL • BORG WARNER SERVICE PARTS • B-W SUPER-CHARGERS, INC. • CALUMET STEEL • DETROIT GEAR • DETROIT VAPOR STOVE • INGERSOLL STEEL & DISC • LONG MANUFACTURING • MARBON • MARVEL-SCHERBLER CARBURER • MECHANICS UNIVERSAL JOINT • MORSE CHAIN • NORGE • NORGE MACHINE PRODUCTS • PESCO PRODUCTS • ROCKFORD CLUTCH • SPRING DIVISION • WARNER AUTOMOTIVE PARTS • WARNER GEAR

Dow Pl

New York,



WHAT'S BEHIND THIS

*plastic screen*

Before long *you'll* be able to put up new plastic screens too. When you do, you'll see plastics at their very best. You'll see screen made from SARAN—the same Dow plastic used in other forms for pipe and tubing, protective wrapping film—even beautiful fabrics.

Let's look at this screen. Woven from single SARAN strands—it is lightweight and colorfully translucent. It's strong—

durable. It's long-lived. And best of all, there's no discoloring rust—no ugly brown stains to mar your home. SARAN simply *can't* rust or corrode!

Screen from SARAN is on war duty in the humid, material-destroying areas of the Pacific and other fighting fronts right now. But it is coming back—soon we hope—ready for many pleasant evenings on your own back porch.

**SARAN**

DOW DEVELOPED

IT FORMS DURABLE WOVEN PRODUCTS

Behind every SARAN product—produced in finished form by skilled fabricators and manufacturers—stand years of research. From acid-resistant containers to rot-proof rope, or strong, attractive fabrics for upholstery, shoes and luggage—SARAN products are the result of working with others. Manufacturers are invited to consult any Dow office.

**DOW**  
**PLASTICS**

Dow Plastics include: Styron, Styraloy, Saran, Saran Film, Ethocel and Ethocel Sheeting

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

New York, Boston, Philadelphia, Washington, Cleveland, Detroit, Chicago, St. Louis, Houston, San Francisco, Los Angeles, Seattle



## COMING YOUR WAY

A New Kind of  
Horsepower is  
Changing Your World

*This is the story of what is likely the biggest thing that has happened in our time . . . of a new kind of power spreading throughout the world . . . of a new force affecting our lives, our outlooks, and our incomes as perhaps only electricity has done since the turn of the century.*



4. Most efficient power plant in the world, today's Wright Cyclone packs a horsepower into less than a pound of metal. Four Cyclones develop more power than the mightiest locomotive operating in the Rocky Mountains . . . and already this new power is changing ranches and farms, business and homes . . .

1. Under the wing of a giant Lockheed Constellation, in the shadow of one of the big ship's four Wright Cyclones, two men talk. One is a veteran airline pilot who lives and works in a world most



2. The Westerner operates a ranch that was literally made possible by power — electricity and irrigation from the great Boulder Dam harnessing the Colorado River. Power which made possible the conversion of millions of acres of barren wilderness into fertile ranches and farms!

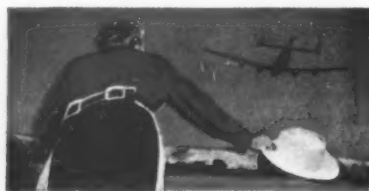


5. These Cyclones help make possible the operation of U. S. transport planes over more than 110,000 miles of global air routes. For example, 1,800 cargo shipments daily leave a single U. S. airport, and millions of miles are daily flown by U. S. airlines and the Air Commands of our armed services.

people haven't yet begun to know or understand or even to imagine! The other, a man who has seen a whole vast western section of America change in his lifetime as if by magic!



3. No wonder he's eager to hear the pilot tell of a new super-power — such as that of the Wright Cyclone . . . the engine which speeds the great Boeing B-29 Superfortress across the air miles to Tokyo . . . power that makes possible a trans-Atlantic flight every 13 minutes.



6. Carrying our men, materials, ideals to the corners of the earth — breaking down barriers of distance — the Cyclone power of American aviation is changing the world you live in . . . right over your head!

LOOK TO THE SKY, AMERICA!  
**CURTISS  
WRIGHT**

AIRPLANES • ENGINES • PROPELLERS

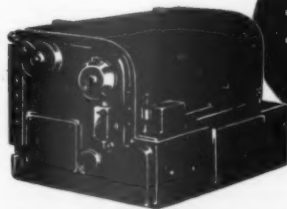
# NOW...EFFICIENT PRODUCTION OF SINGLE PIECES OR JOB LOTS ...FROM THE SAME MACHINE



*A new production principle controls  
a multi-purpose machine automatically or manually*

The Bullard MAN-AU-TROL principle of automaticity gives to *one* multi-purpose machine the ability to produce one piece or many pieces with a degree of shop efficiency hitherto possible only from two or more different machines... Applied to a Vertical Turret Lathe, for example, MAN-AU-TROL automatically controls production of any part the machine is capable of turning out... in long or short runs. It cuts down setup time from one class of work to another. It allows instant conversion to manually-controlled production of entirely different parts without affecting the automatic setup of the production job... This revolutionary mastery of the machine is achieved because the Bullard MAN-AU-TROL merely duplicates without human or cumulative error the mental and muscular functions performed by a manual operator, while the operator continues to supervise the production. It increases the inherent versatility of any machine of which it is a part. However, for the present, it is being applied only to Bullard machines. The Bullard Company, Bridgeport 2, Connecticut.

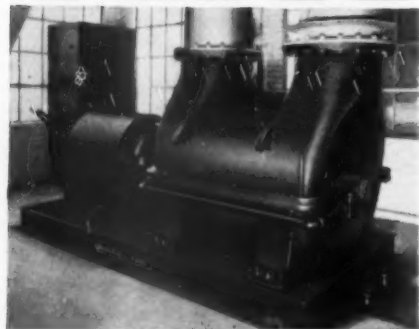
*The automatic control that is  
as versatile as manual control*



100% automaticity... 100% versatility... no human or cumulative error... control to the closest tolerances... a tremendous cost advantage in competitive markets!



# AIR



This is not a recipe for the world's best loaf of bread—nor a sales talk for the virtues of vitamin rich yeast. However, both are very much dependent upon the use of compressed air . . . for without air there would be no yeast, and without yeast there would be no bread.

A modern yeast vat produces two and one-half tons of yeast in an eleven-hour "growing" period. During those eleven hours, *fifty-five tons of air* are blown through the vat to aerate and agitate the contents. Very little of this air remains in the final product, but its use is essential to the commercial yeast process.

Blowing yeast vats is but one of the many uses of Ingersoll-Rand Turbo Blowers—they play an important part in the production of iron and steel, copper, and other metals, and in the manufacture of gas and many types of ceramic products.

For every one of the industrial jobs that requires the use of compressed air, Ingersoll-Rand makes the machine to compress it, also many of the tools that use it. That is why our engineers, after studying your problems, will be able to help you select the proper equipment for any application.

## Ingersoll-Rand

11 BROADWAY, NEW YORK 4, N. Y.

12-730

COMPRESSORS



CONDENSERS

TURBO BLOWERS

CENTRIFUGAL PUMPS

ROCK DRILLS

AIR TOOLS

OIL AND GAS ENGINES

# "Proving Grounds"



The "Proving Ground" where Wabco Piston Packing Cups were developed . . . and where they are under year-round continuous, gruelling test . . . is 4-ft. 8½-in. wide and hundreds of thousands of miles long! For it was American railroads that created the need for this unusual packing.

When trains started traversing deserts with semi-tropical temperature, and negotiating mountain passes where sub-zero temperatures were encountered, ordinary packing materials couldn't stand the gaff. Westinghouse Air Brake Company's research men tackled the problem of developing a new packing material, that would stand extremes of heat and cold, retain its resilience and sealing properties under all conditions, and combine long life with unfailing dependability. Wabco packing was their answer.

If pneumatic or hydraulic cylinders are used on your products, you can solve your packing problems simply and economically by specifying Wabco. Wabco cups are available for original installation in sizes from ¾-in. to 30-in. for pneumatic cylinders, and from 1 ¾-in. to 7-inch for hydraulic cylinders. Built-in Limited Compression, an important feature, is available in cups from 1-in. to 7½-in. Ask for a bulletin giving dimensional information.

## WESTINGHOUSE AIR BRAKE COMPANY INDUSTRIAL DIVISION

General Offices:  
WILMERDING, PA.



WABCO PACKING



COMPRESSORS



PNEUMATIC CONTROLS





## A lot of lifts before the letdown

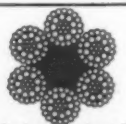
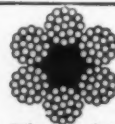
Have you ever stopped to think of how much lifting it takes to let down a bomb?... From production line to storage to freight car... from dock to truck to field dump. There the bomb is deposited on the trailer which delivers it under the bomber. Thin steel cables with hooks lift it up into the bomb bay—and the plane takes it for its last long lift! *Almost every lift at every stage is made with wire rope.*

Wire rope requirements of the war have run into hundreds of thousands of tons... absorbed most of Rochester's output the last four years. That Rochester's standard grades and sizes have exceeded all Armed Forces specifications... is significant evidence of the built-in stamina that has made Rochester a name for the best in wire rope.

As war needs lessen, Rochester ropes will become available in quantity. Orders placed now will get the earliest delivery.

**ROCHESTER** *Ropes*  
JAMAICA, NEW YORK • CULPEPER, VIRGINIA

CONSERVE  
YOUR CABLES



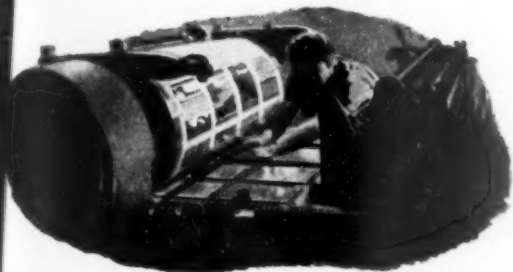
*Culpeper, Va. and Jamaica, N. Y., plants*  
Wire rope is precious now! Take proper care of what you have!

*In bringing you the printed word...*

## NOTHING SERVES LIKE COPPER



Printing begins with paper, and most paper begins with wood pulp spread as a wet film on the fine copper wire screen of the block-long *Fourdrinier* machine. This travelling screen is of fine bronze wire... bronze for strength, flexibility, resistance to wear and corrosion.



3. Printing presses, too, require copper in electric motor and control equipment, brass and bronze in bushings, bearings and pneumatic feeder parts. And copper is used universally in the photoengravers' plates from which illustrations are reproduced.



2. Brass, a readily workable copper alloy, is the material on which the type founder carves the original type designs. Each letter is drawn about five inches high and carved into a heavy brass plate. Reduced in size by pantograph, these smaller brass plates become the molds, or *matrices*, in which the type is cast.



4. Multiple printing of millions of pages requires copper also. Wax impressions are made of each page. Copper is deposited electrolytically on the wax forming thin copper shells which are reinforced with type metal. Thus, duplicate plates are provided so that many copies may be printed at the same time.

★ ★ ★

You have had but the briefest glimpse of the part copper and copper alloys play in producing a printed page. These metals serve many other useful purposes because they combine the properties of corrosion resistance, workability, strength, and electrical and thermal conductivity.

4502-A

### THE AMERICAN BRASS COMPANY

General Offices: Waterbury 88, Connecticut

Subsidiary of Anaconda Copper Mining Company

In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.



# Anaconda Copper & Brass

Keep Faith with Your Fighters and Yourself! Buy War Bonds for Keeps



## This dam arrived on a rubber railroad

### ANOTHER REASON FOR GOODYEAR LEADERSHIP

**Y**OU'RE looking at what happens when 12 million tons of sand and gravel are moved nearly 10 miles over a "rubber railroad" and then get together in a concrete mixer.

Yes, this is famed Shasta Dam, one of the modern engineering miracles in which gigantic Goodyear Conveyor Belts are playing a prominent part. These miles-long belts of tough rubberized fabric carry incredible totals of tonnage—then move on to other jobs!

Goodyear Conveyor Belts give the world's lowest cost per-ton-mile

transportation for the movement of coal, sand, gravel and such. Today, they are available only for essential war jobs. Tomorrow, these belts will bring new economy and efficiency for mining, construction and other large haulage operations.

Into every foot of Goodyear belting goes all of the painstaking craftsmanship of men experienced in working with rubber and fabrics. That's one of the reasons why far more tonnage is carried on Goodyear Conveyor Belts than on any other kind.

*The world's leading builder of tires, and a pioneer in rubber—natural and synthetic—Goodyear also has worked for years with metals, fabrics, chemicals... constantly acquiring new skills with which to bring you better products.*

BUY WAR BONDS—BUY FOR KEEPS



THE GREATEST NAME IN RUBBER

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